2007-08 CATALOG
MT. SAC
MT. SAN ANTONIO COLLEGE
NEW BEGINNINGS!
ACKNOWLEDGMENTS

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The Catalog is available in alternate formats (Braille, enlarged text, e-text, etc.) upon request. Please contact Disabled Student Programs & Services at (909) 594-5611, ext. 4290.
ACCREDITATION
Mt. San Antonio College is reviewed and accredited by the Accrediting Commission for Community and Junior Colleges (ACCJC) of the Western Association of Schools and Colleges. This accreditation authorizes the College to offer courses that parallel the first two years of the curricula for state universities. The ACCJC can be contacted in writing at 10 Commercial Boulevard, Suite 204, Novato, California 94949 or by phone at (415) 506-0234.

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

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

The 2007-08 Catalog does not constitute a contract or terms of a contract between the student and the College.

Mt. San Antonio College
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This 2007-08 College Catalog is being published in conjunction with the conclusion of Mt. San Antonio College’s 60th Anniversary celebration. For six decades, we have offered quality, affordable and accessible learning opportunities to more than a million students in the San Gabriel Valley as well as other parts of California and the world.

I encourage you to use this Catalog as your planning and resource guide to explore the vast scope of opportunities, services and programs that Mt. SAC offers.

Whether you are pursuing one of the more than 200 degree and certificate programs or upgrading your job skills, we remain fully committed to providing you quality instruction, support services and a first-rate learning environment to prepare you for the real world.

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

Over the past 60 years, Mt. SAC has become a “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 have brought to the College.

Having celebrated our rich past, Mt. SAC now launches an era of “new beginnings,” offering you enhanced programs, a revitalized campus environment, as well as fresh opportunities to foster your success in today’s world.
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2007-2008 College Calendar

Fall 2007

June 4
International student application deadline for Fall 2007

July 4
Independence Day—(campus closed)

July 25 - August 22
Registration period for 2007 Fall Credit Classes

August 14
Community Education Registration begins for Fall 2007

August 26
Residency determination date

August 27
Fall Semester begins

August 31
Application period ends

September 3
Labor Day—(campus closed)

September 7
Last day to apply for refund for 16-week classes

September 7
Last day to add a 16-week class

September 17
Last day to withdraw without a "W" for 16-week classes

September 28
Last day to change grading option for 16-week classes

October 12
Last day to petition for Fall Semester and Winter Intersession graduation

November 2
Last day to withdraw from Fall Semester for 16-week classes

November 5
International student application due for Winter 2008 Intersession

November 12
Veteran's Day—(campus closed)

November 22 - 25
Thanksgiving Recess—(campus closed)

November 28
Registration begins for 2007 Winter Intersession and 2008 Spring Semester Credit Classes

December 4
Community Education Registration begins for 2008 Winter Intersession and 2008 Spring Semester

December 10 - 16
"Book Buy Back" at "SacBookRac"

December 10 - 16
Final Exams—(see schedule in Mt. SAC Info Guide)

December 16
Fall Semester ends
2007-2008 College Calendar

Winter 2008

November 5, 2007  International students application deadline for Spring 2008
November 28, 2007  Telephone & online registration begins for Winter and Spring 2008

December 3, 2007  International student application deadline for Spring 2008

January 2, 2008  Telephone & online registration ends for Winter 2008
January 7  Winter Intersession begins
January 14  Last day to apply for refund for 6-week classes
January 21  Martin Luther King, Jr. Day—(campus closed)

February 17  Winter Intersession ends
February 18  Lincoln's Birthday—(campus closed)

Spring 2008

November 28, 2007  Telephone & online registration begins for Winter and Spring 2008

December 3, 2007  International student application deadline for Spring 2008

January 1 - 2, 2008  New Year's Holiday—(campus closed)

February 20  Telephone & online registration ends for Spring 2008
February 22  Flex/Staff Development Day
February 24  Residency determination date
February 25  Spring semester begins
February 29  Spring application period ends

March 7  Last day to apply for refund for 16-week classes
March 7  Last day to add a 16-week class
March 14  Last day to withdraw Without a "W" for 16-week classes
March 28  Last day to change grading option for a 16-week classes
March 31  Cesar Chavez Day of Observance—(campus closed)

FEBRUARY 2008

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MARCH 2008

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APRIL 2008

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JUNE 2008

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29 30
## 2007-2008 College Calendar

### Spring 2008 (continued)

| April 11 | Last day to petition for May 2008 Graduation |
| May 2   | Last day to withdraw from Spring Semester |
| May 5   | International student application deadline for Summer Session 2008 |
| May 14 - June 18 | Telephone and online registration for Summer 2008 |
| May 26  | Memorial Day—(campus closed) |

| June 9 - 14 | Final Exams—(see schedule in Mt. SAC Info Guide) |
| June 13   | Commencement |
| June 15   | Spring semester ends |

### Summer 2008

| May 5   | International student application deadline for Summer 2008 |
| May 14 - June 18 | Telephone & online registration begins for Summer 2008 |

| June 18  | Telephone & online registration ends for Summer 2008 |
| June 23  | Summer session begins |
| June 30  | Last day to apply for refund for 6-week classes |

| July 4   | Independence Day—(campus closed) |
| July 7   | International student application deadline for Fall 2008 |

<p>| August 3 | Summer session ends |</p>
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<td>* English, Literature &amp; Journalism</td>
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<td>* Theater</td>
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* Instructional Programs and Departments
Section 1

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

- prepare students for transfer to baccalaureate-level colleges and universities.
- increase vocational competence resulting in usable and marketable occupational skills.
- provide a general education emphasizing basic skills and appreciation of our shared scientific, technological, historical, and artistic heritage.
- promote continuing education and lifelong learning.
- assist the student through guidance to know and develop his/her abilities in relation to his/her potential.
- 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 6 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 (8) instructional divisions within which are 41 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 nearly 40,000. In 2006, Mt. SAC proudly celebrates 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

It is the mission of Mt. San Antonio College:

- to provide accessible and affordable quality learning opportunities in response to the needs and interests of individuals and organizations.
- to provide quality transfer, career, and lifelong learning programs that prepare students with the knowledge and skills needed for success in an interconnected world.
- to advance the State and region’s economic growth and global competitiveness through education, training, and services that contribute to continuous workforce improvement.

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**: Rosanne Bader
- **Vice President**: Dr. Manuel Baca
- **Clerk**: Fred Chyr
- **Member**: Dr. David K. Hall
- **Student Trustee**: Isaiah Deresa
- **Interim College President**: Dr. John S. Nixon

**ADMINISTRATION**

**Administrative Services** Ext. 4230

- **Vice President, Administrative Services**: Michael Gregorzyk
- **Director, Auxiliary Services**: Jay Devers
- **Director, Auxiliary Services Accounting**: Sid Young
- **Director, Bookstore**: Suzanne Luetjen
- **Director, Bursar’s Office**: Sheree Culross
- **Manager, Custodial Services**: Luis Gracia
- **Director, Facilities Planning and Management**: Gary Nellesen
- **Assistant Director, Facilities, Planning and Management**: Becky Mitchell
- **Facilities Project Manager**: Roger Sneed
- **Director, Fiscal Services**: Linda Baldwin
- **Assistant Director, Fiscal Services**: Rosa Royce
- **Director, Food Services/Satellite Operations**: Becky Carr
- **Director, Grounds and Transportation**: Carol Baker
- **Director, Maintenance**: Kent Smith
- **Director, Payroll**: Donna Evans
- **Director, Public Safety**: Doug Evans
- **Assistant Director, Public Safety**: Michael Montoya
- **Director, Purchasing**: Margaret Young
- **Director, Safety, Health Benefits, and Risk Management**: Karen Saldana
- **Director, Technical Services/Learning Resources**: Bill Eastham

**Human Resources** Ext. 4225

- **Interim Vice President, Human Resources**: Dr. Jack Miyamoto
- **Director, Human Resources**: Trinda Hoxie

**Information and Educational Technology** Ext. 4357

- **Chief Technology Officer**: Vic Belinski
- **Director, College Information Systems and Project Manager**: Sheryl Hullings
- **Director, User Support and Network Services**: Dale Vickers

**ADMINISTRATION (continued)**

**President’s Office** Ext. 4121

- **Director, Marketing and Communication**: Clarence Brown
- **Director, Development and Foundation**: Leslie Kerr

**Instruction** Ext. 4200

- **Interim Vice President, Instruction**: Dr. Virginia Burley
- **Interim Dean, Instructional Services**: Dr. Deborah Boroch
- **Dean, Arts Division**: Dr. Susan Long
- **Dean, Business and Economic Development Division**: John Heneise
- **Associate Dean, Business and Economic Development Division**: Vacant
- **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**: Kerry Stern
- **Director, Learning Assistance Center**: Meghan Chen
- **Dean, Natural Sciences Division**: Larry Rediger
- **Associate Dean, Natural Sciences Division**: Vacant
- **Dean, Physical Education Division**: Deborah Blackmore
- **Director, Physical Education/Wellness Programs**: Joe Jennum
- **Interim Dean, Technology and Health Division**: Dr. Sarah Daum
- **Associate Dean, Technology and Health Division**: Vacant
- **Director, Nursing Program**: Susie Chen
- **Assistant Vice President, Community Education**: Barbara Crane
- **Director, Basic Skills**: Madelyn Arballo
- **Director, Community Education and Contract Training**: Gary Kay
- **Director, ESL and Intercultural Programs**: Donna Burns
- **Assistant 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

**Student Services** Ext. 4505

- **Vice President, Student Services**: Dr. Audrey Yamagata-Noji
- **Dean, Counseling**: Raul Rodriguez
- **Associate Dean, Counseling**: Thomas Mauch
- **Dean, Student Services**: Carolyn Keys
- **Dean, Enrollment Management**: Dr. George Bradshaw
- **Assistant Dean, Enrollment Management**: Patricia Montoya
- **Director, Upward Bound**: Juan Carlos Astorga
- **Coordinator, CalWorks/CARE**: Dora Lozano
- **Director, Assessment and Matriculation**: James Ocampo
- **Director, Career and Transfer Services**: Heidi Lockhart
- **Director, Disabled Student Programs and Services (DSP&S)**: Grace Hanson
### ADMINISTRATION (continued)

- Director, Extended Opportunity Programs and Services (EOPS) ................. Irene Herrera
- Director, Financial Aid .................................................. Susan Jones
- Director, Health Services ............................................. Sandra Samples
- Director, Marketing and Communication .................................. Clarence Brown
- Director, Student Life .................................................. Dyrell Foster

### INSTRUCTIONAL DIVISIONS

#### Arts Division

**Ext. 5200**

**Dr. Susan Long, Dean**

The Arts Division is comprised of four departments: Art/Animation, Music, Photography, and Theater. The division sponsors numerous award-winning performance groups, houses an art gallery, and includes studio arts as well as digital arts and radio and television programs. The division sponsors student drama and music productions in the Performing Arts Center, oversees the animation and radio and television certificate programs, and monitors the college radio station, KSAX, as well as vocational degrees and certificates in Photography, Computer Graphics and Design for Interactive Visual Media. The division has performing groups that have competed internationally and have established top national and international ranking. For information relating to departments, programs, or events, contact the division office at ext. 5200.

#### Business and Economic Development Division

**Ext. 4600**

**John Heneise, Dean**

Associate Dean (vacant)

Business and Economic Development is comprised of five educational departments, three Economic Development programs and one service area. The educational departments are: Accounting and Management, Business Administration (Paralegal Studies, Marketing, Sales, Real Estate and Economics), Computer Information Systems (Programming, Networking and Security), Child Development, Consumer Science and Design Technologies, and Office Technology. For additional information, contact the division at ext. 4600.

The Economic Development programs are Small Business Development Center, Center of Excellence, and Contract Education South. For additional information, contact specific offices listed below.

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

#### Economic Development Directors

- Center of Excellence .................................................. Audrey Reille, Ext. 6106
- Contract Education South ........................................... Scott Hammer, 909-628-5748
- Small Business Development Center ............................... Daniel Morales, 800-450-7232

### INSTRUCTIONAL DIVISIONS (continued)

#### Community Education Division

**Barbara Crane, Assistant Vice President**

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

#### Humanities and Social Sciences Division

**Ext. 4570**

**Dr. Stephen Runnebohm, Dean**

**James Jenkins, Associate Dean**

The Humanities and Social Sciences Division is comprised of eight departments: American Language; Communication; English, Literature and Journalism; Foreign Languages; History, Art History, Geography and Political Science; Psychology and Education; Sign Language; and Sociology, Philosophy. The division sponsors interdisciplinary and national award-winning programs and publishes the student newspaper, The Mountaineer, through journalism courses. The division also supports a nationally ranked forensics program, a successful study abroad program, and the Teacher Preparation Institute. For additional information, contact the division at ext. 4570.

#### Library and Learning Resources Division

**Ext. 4260**

**Kerry C. Stern, Dean**

**Meghan Chen, Director, Learning Assistance Center**

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

#### Departments

- Distance Learning ...................................................... Ext. 5658
- Learning Assistance .................................................. Chair, Pat Bower, Ext. 4304
- Library ............................................................................ Ext. 4260
- Media Services ......................................................... Ext. 4270
- Professional and Organizational Development ............... Ext. 4504
- Tutoring ......................................................................... Ext. 6605
INSTRUCTIONAL DIVISIONS (continued)

Natural Sciences Division Ext. 4425
Larry L. Redinger, Dean
Associate Dean (vacant)

The Natural Sciences Division provides a wide variety of diverse educational opportunities and programs within its six departments: Agricultural Sciences; Biological Sciences; Chemistry; Earth Sciences, and Astronomy; Mathematics and Computer Science; and Physics and Engineering.

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

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

Mt. San Antonio College has been a leader among community colleges for over 50 years. Our strong commitment to Physical Education, Athletics and Dance is exhibited by our dedication to the health and well being of our students and our 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 all our student/athletes and serves as the “model” academic support program for all community colleges.

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

Technology and Health Division Ext. 4750
Dr. Sarah Daum, Interim Dean
Associate Dean (vacant)

The Technology and Health Division provides 31 certificates and 31 degrees in occupational and vocational programs in the areas of technology, public services, and health care. The programs offer a variety of Associate in Science Degrees and certificates leading to job placement, transfer, and updating of skills. Programs offered in technology include Aeronautics, Air Conditioning and Refrigeration, Aircraft Maintenance, Architecture and Engineering Design, Electronics Technology, Travel, Water Technology, and Welding. The Public Services Programs include Fire Technology, Administration of Justice, Correctional Sciences, and Alcohol and Drug Counseling. Health Care Programs include Medical Services, Mental Health, Radiologic Technology, Respiratory Technology, and Nursing. The Associate Degree Nursing program provides quality preparation for students seeking a career as a Registered Nurse. Programs are driven by industry needs, and many are governed by State accrediting boards. In addition, the division includes The Regional Health Occupations Resource Center (RHORC) and the RHORC at ext. 6108. For additional information, contact the division at ext. 4750.

Department
Regional Health Occupations Resource Center ........................................... Ext. 6101
Matriculation Services:
Admissions and Registration
Assessment and Placement
Orientation
Counseling/Advisement

Section 2
Matriculation

ADMISSION AND REGISTRATION

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

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

1. The application for admission 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 tip of the web page.
2. Applications for admission to credit classes are available at the Admissions and Records Office and are also included in each Mt. San Antonio College Schedule of Classes. You may submit this application in person or mail it to:
   Admissions and Records
   Mt. San Antonio College
   P.O. Box 910, Walnut, CA 91788-0910.

Residency Requirements

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

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

1. Resident: A “resident” is a person who is eligible to establish California residency for tuition purposes or who has resided within California for at least one year and who has established a legal residence in California prior to the residency determination date.
2. Non-resident: A “non-resident” 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, in law, a residence.
2. Every person who is married* or 18 years of age or older, and under no legal disability to do so, may establish residence.
3. In determining the place of residence, the following rules are to be observed:
   a. There can be only one residence.
   b. A residence is the place where one remains when not called elsewhere for labor or other special or temporary purposes, and to which 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.

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

College Starter Program
The College Starter Program is designed for gifted high school juniors and seniors 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 College Starter program:

1. Be recommended by their high school principal or counselor
2. Be approved to participate by their parents
3. Have a 2.0 cumulative high school grade point
4. Meet all course prerequisites
5. Students with a high school grade point average between 2.0 and 2.9 will be allowed to enroll in a single course. Students wishing to enroll in two courses must have a 3.0 grade point average or above.

Only college level courses may be taken as part of the College Starter Program. Students may not enroll in a course to make-up a high school course deficiency.

Special Admit Program
The Special Admit program is designed for gifted students enrolled in the 10th or earlier grades. The program is designed to provide an enrichment experience providing course opportunities not available as part of their school’s curriculum. To participate, students must meet the following criteria:

1. Be recommended by their high school principal or counselor
2. Be approved to participate by their parents
3. Have a B average/3.0 cumulative school grade point average
4. Meet all course prerequisites
5. Take the Mt. SAC placement test in English and Reading

Only college level (degree appropriate and/or UC/CSU transferable) courses may be taken as part of the College Starter Program or Special Admit Program. Students may not enroll in a course to make-up a high school course deficiency.

* 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.
Students participating in either program will receive college credit that will become part of their permanent college record. High school credit may be accepted at the discretion of the receiving high school.

**Evaluation of Other College Coursework**

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

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

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

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

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

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

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

School District, Adult Education, and Regional Occupational Program (ROP) teacher will make students aware of the procedures for obtaining advanced placement and/or credit by examination at Mt. San Antonio College in an articulated program.

Students must request a 2+2 Articulation Credit form from their High School, ROP, Adult School, or Tech Prep office.

Students will complete a 2+2 Articulation Credit form and have the form certified by the appropriate instructor from their school program. Students requesting Articulation Credit will complete a College Starter Program application and attach their high school transcript.

At the conclusion of the High School, ROP or Adult School course, students must submit the completed 2+2 Articulation Credit form, application, and transcript (for Articulation Credit) to the Tech Prep office at Mt. San Antonio College.

If the course work has been satisfactorily met, the subject area department chair will complete the Request for Articulation Equivalency form and check the box marked variance. Students seeking credit through the articulation process are required to take an exam. If the exam requirement has been satisfactorily met, the subject area department chair will complete the Request for Articulation Equivalency form and check the box marked credit.

Upon receipt of the 2+2 Articulation Credit form (plus application and student transcript for Articulation Credit), the Tech Prep office will prepare the Request for Articulation Equivalency form and forward it to the appropriate department. Once the form is completed and returned to the Tech Prep office, the student will be notified of advance placement or credit standing. Students who are granted credit will receive an unofficial transcript.

Articulation agreements and subject area competencies are updated annually.

College credit issued by ROP and/or Adult Education centers will be accepted if the issuing program 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).

**Admission of International Students**

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

- Mt. SAC Application for Admission
- International (F-1 Visa) Student Application
- Application processing fee of $50.00 (U.S.)
- Confidential Financial support documents
- A “paper based” TOEFL score of at least 450, “computer based” TOEFL score of at least 133, or an Internet-based score of at least 45.

Transcripts from high school and/or college attended

- TB (tuberculosis) test
- Proof of health insurance (prior to registration)

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

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

The deadlines to apply for the 2007-08 school year are as follows:

- Summer 2007 — First Monday of April
- Fall 2007 — First Monday of June
- Winter 2008 — First Monday of November
- Spring 2008 — 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, admissions application (both college and International Student Application), and all supporting materials must be received on or before the deadline listed above. Students will be required to take the Assessment of Written English (AWE) when they arrive at Mt. San Antonio College.

Applications received after the deadline will be considered for the following semester. The application fee must accompany the admission application.

**Registration**

Registration for classes is done online via the web at http://my.mtsac.edu or by touchtone telephone at (909) 595-MSAC (595-6722). Students who enrolled in the previous semester or session preceding the enrollment term are eligible to register for classes and will be mailed a Permit to Register at least two weeks prior to the beginning of registration. Mailing of Permits to Register for new applications is dependent on the date an application is submitted.
Matriculation

Students who do not receive a permit in the mail before the first day of registration may also check their date and time to register at http://my.mtsac.edu. Students should remember to update their mailing address at the above web site or at the Admissions and Records Office.

Schedule of Classes

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

Enrollment Fees and Expenses

Students are charged an enrollment fee, an optional Student Activities Fee, a Student Health Services Fee, and for some classes Materials Fees for each semester at Mt. San Antonio College. These fees are subject to change. 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 $400 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 (if paying by credit card) or at the Bursar’s Office located in Building 9A.

Refund of Fees

To be eligible for a refund, students must complete and file a Request for Fee Refund form at the Bursar’s Office. The Request for Fee Refund form must be completed whether a class is dropped in person, online or by Telephone Registration. Requests for Fee Refund forms must be completed prior to the end of the second week of each semester for 16 week classes, and prior to the end of the first week for short-term classes. This refund period applies to the following fees:

- Enrollment Fee
- Student Activities Fee (optional)
- Student Health Services Fee
- Parking Fee (optional)
- Course Materials Fee

NO REFUNDS will be granted after the second week of the semester, military withdrawal, and classes cancelled by the College.

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.

NOTE: A $10 refund processing fee will be assessed to every refund where enrollment fees are being returned. The processing fee will not apply to refunds for college cancelled classes or special administrative drops.

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 are eligible for a full refund of fees paid for those classes. To receive the fee refund, the student must complete and file a Request for Fee Refund at the Bursar’s Office. All applicable receipts, cards, and permits must be attached to the request form.

Student Obligations

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

There is a processing fee of $25 for returned checks or stop payment of checks.

Students having disciplinary obligations with the Student Life Office will not be allowed to transact College business until the obligation is met.

ASSESSMENT AND PLACEMENT

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

Placement Tests

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

English Placement

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

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) reading test to assess student reading skills. Based on the results of the reading test, the student will be advised to take an appropriate reading course.

Retest Policy

Students may repeat a test once every three months. Under certain extenuating circumstances and with approval of the Director of Assessment, 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 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 with 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 have not acquired a high school diploma or GED must perform at a passing level on an Ability To Benefit test. The test is approved for use by the federal government, and passing scores have been established by the Department of Education. Testing is conducted at the Assessment Center. For further information regarding Ability to Benefit regulations, contact the Financial Aid Office.

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

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

EXEMPTION FROM MATRICULATION
Students are exempt from Matriculation requirements if they are:
A. enrolled in Community Services classes only;
B. graduates with an Associate or advanced degree from an accredited institution; or
C. registering only in general interest classes.

Exemption from matriculation does not preclude the requirement to meet course prerequisites which may include assessment.

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

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

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

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

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

CHALLENGING PREREQUISITES AND COREQUISITES
If a student believes that any of the following conditions exist with regard to an existing course prerequisite or corequisite, the student may obtain a Petition to Challenge form from the Counseling Office or Admissions and Records Office in the Student Services Building or from division offices.

- 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 appropriate division office.

Documentation may include, but is not limited to, high school or college transcripts, additional test results, work experience, or an on-campus writing sample. Prior enrollment in the course does not exempt a student from the current prerequisite of that course.
Section 3  Academic Policies and Requirements
ATTENDANCE AND ENROLLMENT

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

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

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

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

Students will be granted College-authorized absences for participation in the following activities:
1. Player participation in inter-collegiate athletics and activities.
2. Class-planned field trips.
3. Area and State student government conferences.
4. Class-planned and sponsored speech, art, drama, and music programs.

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

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

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

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

Professors may not drop students from class, and students may not drop classes 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, CR, NC) or an incomplete mark for the course.

In short-term courses, students who withdraw or are dropped from class during the first 20% of the course will receive no notation on their permanent record. Students may drop short-term courses only through 61% of the course.

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

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

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

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

Repeatable Courses
Certain courses may be taken more than once for credit. If the course is designated as repeatable, the course may be repeated only for the number of times allowable. 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,” or “Credit.” Students with extenuating circumstances may file a Petition for Exceptional Action in the Admissions Office. Students who are allowed to repeat courses based on this provision will not earn additional units or grade points toward improving or changing the previous grade earned in the class or toward changing the overall grade point average.

Petitions for Exceptional Action
Student Petitions for Exceptional Action forms are available from the Counseling Office and Admissions and Records Office 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.

Limitations on Repeating Courses
Beginning with the Fall 1998 semester, students who have recorded either a substandard grade of either “D,” “F” or “No Credit,” will only be allowed to repeat the same course one time. On repetition, the second or latest grade will count toward the grade point average and the previous grade will be discounted or “forgiven.” 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.

Students shall be allowed a maximum of two withdrawals for a given course where a mark of “W” is posted for both withdrawals. To re-enroll in the course, students must submit a Petition to Re-enroll in a Course after Withdrawal. The petitions are available in department offices and division offices. Students who petition and are approved will have one additional opportunity to re-enroll and successfully complete the course.

Students who believe they have exceptional circumstances can seek a waiver to repeat a class an additional time through the division or department office pertaining to the specific course. Participation in an intervention program may be required.

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.

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.

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 (14th) 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 subject to the approval of the instructor). If the petition is granted, the purposes of making up the incomplete is prohibited. The petition is

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

**RD — Report Delayed:** The “RD” symbol may be assigned only by the Admissions and Records Office. It is to be used when there is a delay in reporting the grade of a student due to circumstances beyond the control of the student. It is a temporary notation to be replaced by a permanent symbol as soon as possible. “RD” shall not be used in calculating grade point averages.

**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 end of 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. “In order to retain catalog rights, a student must re-apply for admission within one semester of completion of active duty.” 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 semester by the Administration and Records office. If a student is unable to attend a scheduled final examination, he/she must contact his/her instructor to make other arrangements. A student who does not take a final examination and who does not qualify for an “Incomplete” (see Grading-Incomplete), shall be assigned the grade “F” or “Zero” for the examination, and this grade shall be averaged in determining the final course grade. When a grade of “Incomplete” has been given, a copy of the final examination must be filed in the appropriate division office at the close of the semester.

**Early Examinations**

If a student must leave school prior to the scheduled final examinations week, he/she may take early examinations with the approval of his/her instructor. In no case may a student be released earlier than two weeks before the scheduled date of his/her final examination.

**Credit/No Credit 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 Credit/No Credit (CR = A, B, or C; NC = D, F). A few classes are offered for Credit/No Credit 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 Credit/No Credit grading option is no longer available for General Education courses.

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

In any short-term course of less than six weeks, students must determine their grading option at the time of registration.

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

Students are cautioned that upon transfer to baccalaureate institutions, “NC” 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:

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, the Counseling Department, or the Advising 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 below to receive the credit indicated. All CSU campuses will accept the minimum units shown below toward fulfillment of the designated General Education—Breadth area if the examination is included in a full or subject-area certification; individual CSU campuses may choose to accept more units than those specified below towards completion of General Education—Breadth requirements. The CSU campus to which the student is transferring determines the total number of units awarded for successful completion of an Advanced Placement examination and the applicability of the examination to other graduation requirements. See the table above for specific AP Subjects.

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

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

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

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

Credit for Extra Institutional Learning

Philosophical Basis

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

<table>
<thead>
<tr>
<th>AP Subject</th>
<th>Number of Units Applicable to General Education—Breadth Requirements for Students Obtaining Full or Subject-Area Certification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Art: History of Art</td>
<td>3 semester units toward Area C1</td>
</tr>
<tr>
<td>Biology</td>
<td>3 semester units toward Area B2</td>
</tr>
<tr>
<td>Chemistry</td>
<td>6 semester units toward Areas B1 and B3</td>
</tr>
<tr>
<td>Economics: Macroeconomics</td>
<td>3 semester units toward Area D2</td>
</tr>
<tr>
<td>Economics: Microeconomics</td>
<td>3 semester units toward Area D2</td>
</tr>
<tr>
<td>English: English Language &amp; Composition</td>
<td>3 semester units toward Area A2</td>
</tr>
<tr>
<td>English: English Literature &amp; Composition</td>
<td>6 semester units toward Areas A2 and C2</td>
</tr>
<tr>
<td>French: French Language</td>
<td>6 semester units toward Area C2</td>
</tr>
<tr>
<td>French: French Literature</td>
<td>6 semester units toward Area C2</td>
</tr>
<tr>
<td>German Language</td>
<td>6 semester units toward Area C2</td>
</tr>
<tr>
<td>Government and Politics: United States</td>
<td>3 semester units toward Area D8</td>
</tr>
<tr>
<td>Government and Politics: Comparative</td>
<td>3 semester units toward Area D8</td>
</tr>
<tr>
<td>History: European History</td>
<td>3 semester units toward Area D6</td>
</tr>
<tr>
<td>History: United States History</td>
<td>3 semester units toward Area D6</td>
</tr>
<tr>
<td>Latin: Vergil</td>
<td>3 semester units toward Area C2</td>
</tr>
<tr>
<td>Latin: Latin Literature</td>
<td>3 semester units toward Area C2</td>
</tr>
<tr>
<td>Mathematics: Calculus AB</td>
<td>3 semester units toward Area B4</td>
</tr>
<tr>
<td>Mathematics: Calculus BC</td>
<td>3 semester units toward Area B4</td>
</tr>
<tr>
<td>Music Theory</td>
<td>3 semester units toward Area C1</td>
</tr>
<tr>
<td>Physics B</td>
<td>6 semester units toward Areas B1 and B3</td>
</tr>
<tr>
<td>Physics C (mechanics)</td>
<td>3 semester units toward Areas B1 and B3</td>
</tr>
<tr>
<td>Physics C (electricity and magnetism)</td>
<td>3 semester units toward Areas B1 and B3</td>
</tr>
<tr>
<td>Psychology</td>
<td>3 semester units toward Area D9</td>
</tr>
<tr>
<td>Spanish: Spanish Language</td>
<td>6 semester units toward Area C2</td>
</tr>
<tr>
<td>Spanish: Spanish Literature</td>
<td>6 semester units toward Area C2</td>
</tr>
<tr>
<td>Statistics</td>
<td>3 semester units toward Area B4</td>
</tr>
</tbody>
</table>
### International Baccalaureate Credit for General Education Requirements for the Associate Degree

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

### 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.

### 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.

### Credit for Military Training
- 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.

### 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 IGEC requirement list.

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

### Entrance Requirements
- **High School Students** — Eligibility for ENGL 1A; 1,000 composite SAT2 score; 3.5 GPA
- **Mt. San Antonio College Students** — Nine transferable units; Eligibility for ENGL 1A; 3.5 GPA (Waivers can be obtained through the Honors Program Office for highly motivated students with a competitive GPA and an in-progress grade report and professor recommendation.)
Requirements for “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 Dean of Instruction at Ext. 5463 or the Honors Program Office at Ext. 4665.

Alpha Gamma Sigma

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

1. **Temporary:** (First college semester only) Must hold a California Scholastic Federation (CSF) Life Membership OR be a high school graduate with a cumulative grade point average of 3.5 or higher. This membership is intended as an introduction to Alpha Gamma Sigma and is not to be considered as an initial membership.

2. **Initial:** (First time membership) Must have completed 12 degree-appropriate units in a maximum of three (3) semesters with a degree appropriate cumulative grade point average of 3.0 or higher.

3. **Continuing:** (Previous membership) Must have achieved for the previous semester a degree appropriate grade point average of 3.0 or higher OR have maintained a degree appropriate cumulative grade point average of 3.0 or higher.

Part-time students are eligible for membership. Membership requires campus and community involvement (service hours). Applications are available in Student Life, Building 9C-1. For further information and review of academic eligibility, students should consult an Alpha Gamma Sigma Advisor or an Alpha Gamma Sigma Advisor. Scholarships provided by Zeta Chapter and the State Alpha Gamma Sigma Organization are available to actively involved members. Some baccalaureate granting institutions provide scholarship assistance which is limited to Alpha Gamma Sigma members. For details, consult with an Alpha Gamma Sigma Advisor.

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

**Phi Theta Kappa**

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

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

2. Students who have maintained a 3.5 grade point average while a member.

For further information and review of academic eligibility, students should consult a Counselor or a Phi Theta Kappa advisor. Currently, some 70 U.S. colleges and universities offer scholarships to members. There are several advantages which accompany this honor, including recognition at graduation. Applications are available at the Honors Program office in 26A-102.

**ACADEMIC STANDARDS**

**Probation and Dismissal**

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

**Academic Probation**

A student is placed on Academic Probation when the student, while enrolled at Mt. San Antonio College has:

1. attempted at least 12 units, and
2. earned a cumulative grade point average below 2.00.

A student will be cleared from Academic Probation when the student's cumulative grade point average at Mt. San Antonio College is 2.00 or higher.

**Progress Probation**

A student is placed on Progress Probation when the student, while enrolled at Mt. San Antonio College has:

1. Enrolled in a total of at least 12 units, and
2. cumulatively received more units of “withdrawal” (“W”), “incomplete” (“I”), and “no credit” (“NC”) than the number of units of “A,” “B,” “C,” “D,” or “CR” and
3. earned more units of withdrawal (“W”), “incomplete” (“I”) and “no credit” (“NC”) in the most recent regular semester of enrollment than the number of units of “A,” “B,” “C,” “D,” or “CR” in that same semester.

**Four Levels of Probation**

**Probation Level 1 (L1)** occurs at the end of the first semester after the student has attempted 12 units and has earned a cumulative grade point average below 2.0, or has received more than 50% of his or her grades as “W,” “INC,” or “NC” grade indicators. Level 1 students will be limited to enroll in a maximum of 12 units while at Level 1 probation status and are encouraged to see a counselor.

**Probation Level 2 (L2)** occurs when the student has completed a second semester of Academic or Progress Probation. Student will be required to participate in a prescribed counseling intervention in order to be eligible to register for the following semester. Students will be limited to a maximum of 7 units while at Level 2 status.

**Probation Level 3 (L3) (Dismissal)** occurs when the student has been placed on Academic or Progress Probation for any three semesters of enrollment and is thereby dismissed from the college for at least one regular semester. If the student has enrolled in the subsequent semester before the Probation 3 status has been determined through the posting of the previous semester’s grades, the student will be dropped from all courses.

**Probation Level 4 (L4) (Subsequent Dismissal)** occurs when a student has been reinstated after having been dismissed and fails to meet the conditions of reinstatement. Level 4 students will not be allowed to enroll in courses for at least two continuous years (four regular semesters). If the student has been determined to be at this probation level through the posting of the previous semester’s grades, the student will be dropped from all courses.

**Clearing Probation**

1. **Academic Probation** — When the student’s cumulative grade point average at Mt. San Antonio College is 2.00 or higher, the student shall be cleared from Academic Probation.

2. **Progress Probation** — A student will be cleared from Progress Probation when the student’s cumulative number of units of “A,” “B,” “C,” “D,” or “CR” reaches or exceeds the cumulative number of units of “W,” “I,” and “NC.”

**Reinstatement After Dismissal**

1. **Probation Level 3 (Dismissal)** — A dismissed student may apply for reinstatement after an interval of one regular semester of absence from Mt. San Antonio College. The student must meet with a counselor to be reinstated and to determine the number of units in which the student will be permitted to enroll.
### Academic Policies and Requirements

#### 2. Probation Level 4 (Subsequent Dismissal) — a subsequently dismissed student may apply for reinstatement after an absence from Mt. San Antonio College of two years or four regular semesters. Petitions shall be submitted to a counselor with verification of remedial work, or evidence of readiness to do successful college work. The counselor determines the number of units in which the student may enroll.

A reinstated student (from Probation 3 or Probation 4) must earn a semester grade point average of at least 2.00 and complete at least one-half of all units attempted in each semester after reinstatement at Mt. San Antonio College. The reinstated student remains on a probationary, reinstated status until the student has achieved a cumulative grade point average of at least 2.00 and has earned at least as many cumulative units of “A,” “B,” “C,” “D,” or “CR” as units of “W,” “I,” or “NC.”

#### Appeals Process

Students with unique and extenuating circumstances which they believe warrant an exception to Mt. San Antonio College regulations and policies may file a Petition for Exceptional Action. Petitions are available in the offices of Admissions and Records, Counseling, Student Life, and Vice President of Student Services.

Students who have clearly documented extenuating circumstances may appeal decisions made at the department level by requesting a review by the College’s Board of Appeals.

#### RECORDS

**Definition of Educational Records**

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

**Academic Renewal**

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

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

#### Transcripts

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

#### Challenge of Educational Records

1. Any student may file a written request with the Records Officer of the District (Dean, Enrollment Management) to remove information recorded in the student’s records which is alleged to be: 1) inaccurate; 2) an unsubstantiated personal conclusion or inference; 3) a conclusion or inference outside of the observer’s area of competence; or 4) not based on the personal observation of the named person with the time and place of the observation noted.

2. If the student is not satisfied with the determination made by the Dean, Enrollment Management, the student may, within thirty (30) days, appeal the decision to the Board of Trustees.

3. Grades assigned by an instructor to indicate the student’s performance in a course are not in contest, unless they were assigned by mistake, fraud, bad faith, or incompetency. (Education Code 76224)
STUDENT SERVICES

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

Admissions and Records
Student Services Center, Ext. 4415
Admissions and Records, located on the lower level of the Student Services Center, provides a variety of services to students. It is usually the first office prospective students visit, and the last office students visit before transferring or graduating. The following are some of the services provided:

1. All students must submit an application for admission in order to attend Mt. San Antonio College. The admissions application generates a Permit to Register and establishes a historical student record for each student. Also, transcripts from high school and other colleges must be submitted for prerequisite eligibility checks.

2. Registration is done online via the web at my.mtsac.edu or by telephone at (909) 595-MSAC. 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 the Student Services Kiosks located in the Student Services Building. These kiosks provide unofficial transcripts, final grades, and copies of the Permit to Register. All services available at the kiosk are also available at my.mtsac.edu. To use this service, students must have their Mt. SAC Student Identification number and Personal Identification Number (PIN).

Advising Center
Student Services, Ext. 4293
The Advising Center offers a variety of transfer support services including:

- a library of college and university catalogs
- opportunities to meet with university representatives
- a complimentary copy of student transcripts

STUDENT SERVICES

Assessment Center
Student Services Center, Ext. 4265
The Assessment Center administers the college’s placement and career assessment program. Services offered are as follows:

1. Placement testing (English, Math, and Reading) measures students’ readiness for appropriate course placement.
2. Career Assessments measure student interests, abilities, work values, and experience to help students with career planning.

To make an appointment for testing or for further information, call or visit the Assessment Center, located on the lower level of the Student Services Center.

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

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

The Bridge Program is the right choice for students who find themselves undecided on career choices, who have apprehensions about the transition to college, and who would like to make new friends. Bridge students share particular educational goals, common interests, and similar backgrounds.

As part of the Bridge Program, students can choose to be part of the Summer Bridge, English Bridge, Math Bridge, and/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.

CalWORKs (California Work Opportunities and Responsibility to Kids), Ext. 4755
(See Extended Opportunity Programs and Services – EOPS)

Counseling Center
Student Services Center, Ext. 4380
The Counseling Center provides services with the educational, vocational and personal support needed to complete their educational goal. It is staffed by professional counselors who assist students with issues that might affect their education progress. Services offered include:

- career counseling and decision making
- career and personality testing and interpretation
- major selection and counseling to prepare for transfer to a four-year institution
- orientation of new students to the college
- evaluating academic skills and college preparedness, especially for those students experiencing academic difficulties
- counseling for personal issues and concerns

New students are required to participate in an orientation session with counselors. Students with associate degrees or higher are exempt. Undecided and new students are encouraged to enroll in Counseling classes during their first year of enrollment at the college.

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

Services include:

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

While Mt SAC graduates may return to the Career Placement Office for employment assistance, current students are strongly encouraged to visit Career Placement Services while they are still attending.
**Disabled Student Programs & Services (DSP&S), Student Services Center, Ext. 4290**

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

To take advantage of the wide array of special programs and services we offer, written documentation of disability must be provided by a physician or appropriate professional; the disability must present a limitation to a successful education; the ability to benefit from instruction must be demonstrated; and self-management skills (mobility, eating and using restrooms without assistance) must be adequate, unless an attendant is utilized. We do not provide attendant service. If students have a doctor’s verification that requires them to park in zones designated as “handicapped parking,” they are required to apply for a state “Disabled Person” permit and placard from the Department of Motor Vehicles, if they don’t already have one. If students have a current “Disabled Person” permit and placard or a “DP” license plate from the State of California Department of Motor Vehicles, they are not required to purchase a student parking permit. They are allowed to park in any parking space designated as “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.

Programs and services are provided for students with various disabilities. There are eligibility requirements for some of the programs offered. We invite and encourage all students to visit Disabled Student Programs and Services, located on the lower level of the Student Services Center.

**CARE (Cooperative Agencies Resources for Education), Ext. 4392**
(See Extended Opportunity Programs and Services – EOPS)

**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 and the office of EOPS assists students seeking Re-Entry services as well as those who qualify for CARE. Some of the services offered are:

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

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

- 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.

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 aids programs for eligible applicants. Eligibility criteria for financial aid programs are subject to frequent change. Current information as well as application forms are available in the Financial Aid Office.

Financial Aid seminars are available to assist students with information about the application process. Contact the Financial Aid Office for information on scheduled seminars.

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

1. Having a high school diploma, a GED, or passing the Ability to Benefit test that has been approved by the Department of Education and is administered at the Assessment Center in the Student Services Center.
2. Being a U.S. Citizen or eligible non-citizen.
3. Maintaining satisfactory progress in accordance with the standards.
4. Not be in default on a federal loan or grant overpayment.
5. Be registered with the selective service, if required.
6. Have a valid social security number.

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

- Federal Perkins Loans
- Board of Governors Fee Waiver
- Federal Pell Grant
- Federal Supplemental Educational Opportunity Grant (FSEOG)
- Federal Work-Study Program (FWS)
- Need-based scholarships
- Federal Direct Loans (subsidized and unsubsidized)
- State CAL Grants
- Federal Family Education Loan (FFEL)

Students eligible for financial aid typically receive a “package” of aid from two or more of the financial aid programs.

Mt. SAC will determine the amount of federal financial aid that a student has earned in accordance with federal law. Recipients of federal programs are subject to the Return of Title IV funds requirements. 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 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:

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 information reported on the FAFSA may be verified by the Financial Aid Office using a parent’s and/or the student’s Internal Revenue Services Forms 1040, 1040A, or 1040EZ. Students must be able to provide a copy of their Social Security card (if requested), Alien Registration card (if applicable), and a Photo ID for identification purposes.

In addition, the College participates in the California Community College Board of Governors Fee Waiver program. This 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) Households 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.

Information about the College Scholarship Program can be obtained in the Financial Aid Office.

Student Health Services (Building 67B)

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 and Financial Aid are also available to assist international students.

International Student Programs

Student Services Center, Ext. 4415

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

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

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

Re-Entry Services

Student Services Center, Ext. 4392

(See Extended Opportunity Programs and Services — EOPS)

Veterans Affairs

Student Services Center, Ext. 4520

Veterans’ Affairs, 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 and/or eligible dependents must apply each semester for their eligibility. The veteran or dependent has the responsibility to adhere to these standards of attendance and progress and to notify the Veterans’ Affairs Office of any change in status that would affect the collecting of veterans’ benefits. Additions, drops, withdrawals, and last day of attendance must be reported at once.

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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 benefits.

Veterans Administration educational assistance allowance through the Veterans Service Center. Special details such as application deadlines can be found in the most current Schedule of Classes.
Child Development Center  
Building 9E, Ext. 4920

Admission Policy
Early care and education services for children from birth through 5 are provided between the hours of 6:30 a.m. and 7:00 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. Day time students have priority.

State Preschool Program Half and Full Day
A State Preschool Program is available for low-income 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 low-income eligible student/parents. There may be a minimum daily fee for this program depending on the family’s gross monthly income.

Community College CalWORKs Funding
This program is available for families who receive TANF (cash aid) benefits.

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

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

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

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

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

Student Life Office/Student Center  
Building 9C, Ext. 4525

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

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

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

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

Student Life Center  
Building 9C, Ext. 5959

The Student Life Center provides a relaxing area to lounge, watch TV, play foosball, ping pong or a variety of board games. Students also have access to free wireless internet with their laptop. The Student Center creates a supportive and relaxing 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 (AS) 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 six executive officer positions and twenty Senate positions available to students interested in becoming involved in making a positive difference on campus. The Senate allocates monies to support various College programs, events and services. There are opportunities for students to also serve on College-wide committees to influence College policies and decision making. Associated Students meetings are held every Tuesday in the Student Center, Building 9C, Room 5 from 3:00 p.m. - 5:00 p.m. The Student Activities Fee funds many AS sponsored events and initiatives which support student clubs, programs, projects and services throughout the year. The Bursar’s Office (Bldg. 9A) sells AS discount amusement park and movie tickets.

Campus Clubs and Organizations  
Building 9C, Ext. 4525

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

Instruction and Learning Resources
INSTRUCTION

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

Online Learning Classes:
Mt. San Antonio College offers many classes online via the Internet. To be successful in these courses, students must have access to a personal computer with Internet connection using Netscape Navigator 6 or Internet Explorer 6 and an e-mail address.

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

For further information about the Distance Learning Program at Mt. San Antonio College, contact the Dean, Library & Learning Resources at (909) 394-5611, Ext. 5638 or e-mail to kstern@mtsac.edu.

Study Abroad Program
Mt. San Antonio College offers students a wide range of study abroad opportunities. The Work and Study in London Program leads participants to obtain a mini-certificate in International Business while working for up to six months in the United Kingdom. There are also a number of short-term summer study programs sponsored by the college in international locations, and our membership in the California Colleges for International Education (CCIE) permits students to participate in study abroad programs sponsored by dozens of other member community colleges throughout California. Interested students may inquire about these programs by contacting the Humanities and Social Sciences Division Office, Ext. 4570, or by visiting the International Studies Office in Building 15, Room 17A.

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

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

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

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

The student enrolled in the work-experience program shall assume and comply with the following responsibilities:
1. Unless otherwise determined, develop measurable learning objectives approved by the Instructor/Coordinator and work-site supervisor.
2. If under the age of 18, obtain the written permission of their parents.
3. Faithfully discharge the duties of the on-the-job assignment.
4. Notify the Instructor/Coordinator of any work-site problems or change in status of duties.

5. Try at all times to represent themselves and the College positively while at the work site.
6. If, prior to enrolling in work-experience education, the student is already employed full time by the work site where the work experience will take place, the student must write a report concerning a learning objective that extended beyond the duties of the regular job.

Humanities/Social Sciences Computer Lab,
Building 26D, Rooms 102, 104, 106

The Humanities/Social Sciences Computer Center offers free services to all students taking courses in the Humanities and Social Science Division. There are three adjacent labs, each with a different function. The Humanities Computer Center (HCC) is a writing lab that students can use to work process their papers. Students can also create PowerPoint presentations in this facility. The main purpose of the Humanities Internet Lab (HIL) is to provide Internet access. Students can research their papers using the library database, telecommunicate with instructors through e-mail, participate in chat rooms, as well as scan and print documents, burn CDs, print color, and use word processing and PowerPoint. Finally, the Writing/Reading Assistance Center (WRAC) has a great selection of grammar software to help students improve their English skills. All three labs also have tutors and an English instructor on duty who can help students in a variety of subjects.

Library and Learning Resources
Learning Assistance Center, Building 6,
South Entrance, Lower Level,
Learning Technology Center

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

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

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

INSTRUCTION AND LEARNING RESOURCES

Section 5  23
## Instruction and Learning Resources

### Library, Building 6, North Entrance, Upper Level, Learning Technology Center

The Library offers students, faculty, and staff a wide variety of information resources for their research needs. In addition to traditional resources such as books, journals, newspapers, videos, career guides, and college catalogs, researchers may also search numerous full-text article databases and access lists of pre-evaluated Internet web sites. 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.

<table>
<thead>
<tr>
<th>ART DEPARTMENT</th>
<th>A.S. Degree &amp; Certificates</th>
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<tbody>
<tr>
<td><strong>Advertising Design &amp; Illustration</strong></td>
<td>Prime Focus: Builds upon the traditional core art courses to provide students with basic skills and concepts utilized in the visual communication industries.</td>
</tr>
<tr>
<td><strong>Aesthetics for Technology</strong></td>
<td>Prime Focus: Provides fundamental design skills and concepts related to art and technology-related industries.</td>
</tr>
<tr>
<td><strong>Animation—(Traditional, 2-D, and 3-D Digital Animation)</strong></td>
<td>Prime Focus: An integrated program of Traditional and Digital Animation providing skills for the entertainment arts.</td>
</tr>
<tr>
<td><strong>Web Page Design</strong></td>
<td>Prime Focus: To provide students with a course of study that includes the use of technology and design issues in a comprehensive way.</td>
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<th>PHOTOGRAPHERS PROGRAM</th>
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<tr>
<td><strong>Computer Graphic Design/Photography</strong></td>
<td>Prime Focus: Offers the full range of introductory to advanced courses in computer graphic design and photography. This program focuses on the application of the principles of visual communication design, and provides technical training in computer generated image production, manipulation, formatting and layout. The focus is on development, refinement and enhancement of visual design and technical skills.</td>
</tr>
<tr>
<td><strong>Photography</strong></td>
<td>Prime Focus: Offers the full range of introductory to advanced courses. As both an art and technical craft, photography offers a dynamic set of creative challenges to both the person behind the camera and a wide range of technical specialist in related disciplines. The program focuses on development, refinement and enhancement of visual imaging.</td>
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<td>Prime Focus: Skills acquired in this program may be utilized in a variety of visual communication industries including Art, Advertising, and Multimedia.</td>
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### Architectural & Engineering Design Technology Department

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<th>Architectural Technology</th>
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<td>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.</td>
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<tr>
<td>Job Market: Career opportunities include Architect, Architectural Designer, Drafter, CADD Operator, Model Builder, and Illustrator. (See Sections 7 and 8)</td>
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<tr>
<th>Engineering Design Technology</th>
<th>A.S. Degree &amp; Certificates</th>
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<tr>
<td>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.</td>
<td></td>
</tr>
<tr>
<td>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)</td>
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</tr>
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</table>
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

COMPUTER INFORMATION SYSTEMS DEPARTMENT

A.S. Degree & Certificate

Prime Focus: The curriculum of the CIS program covers such areas as basic computer literacy, microcomputer applications, the Internet, telecommunications, program development, computer networks, and operating systems. Program development incorporates creating graphical interfaces, client/server applications, object-oriented programming techniques, and web based applications. Course offerings include beginning and advanced relational database design on microcomputers and IBM AS/400 i series mid-range systems, systems analysis and design, and computer operations.

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


OFFICE TECHNOLOGY DEPARTMENT

A.S. Degree & Certificate

Prime Focus: Preparies students with the skills to integrate text, photo images, and graphics in the production of printed and electronic business publications, such as newsletters and flyers.

Job Market: Executive Assistant, Home Business for printed or electronic publications, Office Support Staff, and Publishing Companies. (See Sections 7 and 8)

ELECTRONICS & COMPUTER TECHNOLOGY DEPARTMENT

A.S. Degree & Certificate

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

Job Market: Career opportunities include Service Technician, Production Technician, Engineering Technician, Electronics Communication Technician, Computer Repair Technician, Networking Technician, and Assembler. (See Sections 7 and 8)
Section 6  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, commercial arts, computer graphics, and photography.

For information on Gallery Exhibition dates and times, contact the Art Gallery office at (909) 594-5611, Ext. 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 Science/Wellness Center.

#### Auxiliary Services, Building 9D, Ext. 4470
The Auxiliary Services/Accounting Office serves students, faculty, staff, and the campus community. The following services are provided by this office:
- Administration and supervision of the fiscal operations of the Associated Students
- Accounting for Mt. SAC Relays, the Cross Country Invitational Meet and the AAF Youth Days
- Administration of the Athletic Services Fund
- 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

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 charged and officially dropped. The refund policy is posted and available in the bookstore and printed on a bookmark given at the time of purchase.

#### 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 Cafeteria
**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**

#### Quick Stop
**Building 40, Ext. 6216**

#### Short Stop
**Building 66**

#### Vending Machines
Buildings 4, 7, 9C, 26, 28, 30, 40, 45

#### Performing Arts Center
The Mt. San Antonio College Performing Arts Center is a 66,770 square foot facility that provides instructional and performance accommodations to the three main discipline areas of Theatre, Music, and Dance. The Performing Arts Center was designed as a technological, state-of-the-art instructional facility to prepare Mt. San Antonio College students for careers in the performing arts.

The **Sophia B. Clarke Theater** is a formal 413-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.

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

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

Planetarium, Ext. 2050
The planetarium offers instructional support for college classes, as well as a wide variety of public programs on a regular basis. Information on planetarium shows is available through a 24-hour “hotline.” Please call (909) 594-5611, Ext. 3810. Special programs are offered for elementary and secondary school groups by reservation. Contact the College’s Campus Events office, Ext. 4794, for further information.
Section 7

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

Programs of Study Leading to an Associate in Arts Degree

Mt. San Antonio College offers six Associate in Arts degrees:
- A.A. Transfer Studies – CSU
- A.A. Transfer Studies – IGETC
- A.A. Fine Arts & Humanities
- A.A. Language Arts & Communication
- A.A. Natural Sciences & Mathematics
- A.A. Social & Behavioral Sciences

The A.A. Transfer Studies, CSU and IGETC, are designed to meet the needs of students planning to transfer to a 4-year college or university. The other four degree options are designed to meet the needs of students interested in graduating with an Associate level college degree by studying specific related disciplines of academic subjects. 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 to ensure that if a student did decide at a later date to transfer to a university, they would have a solid beginning in the transfer planning process.

A general overview of the “Graduation Requirements” for these Associate in Arts degrees is found on page 31 of this catalog. Below you will find the specific “major” requirements for each of the six A.A. degree options offered.

A.A. Transfer Studies – CSU

This major is intended for students who are planning to transfer to a university. They are also planning to transfer to one of the campuses of the California State University system. The “Major” requirements for this degree are met by completing the CSU General Education Pattern, listed later in this catalog, Section 9. In addition to CSU General Education certification, a student must meet all graduation requirements for an Associate in Arts degree, described on page 31 of this catalog.

A.A. Transfer Studies – IGETC

This major is intended for students who are planning to transfer to a university. Most students who follow IGETC are hoping to transfer to a University of California campus, but this pattern is also accepted by the California State University system. The “Major” requirements for an A.A. degree are met by completing the IGETC pattern. In addition to completing the IGETC pattern, a student must meet all graduation requirements for an Associate in Arts degree, described on page 31 of this catalog.

Associate in Arts Degrees – Required Courses

A.A. Fine Arts & Humanities
Select 18 “Degree Appropriate” units from the following related disciplines:

- AHIS
- DN-T
- HUMA
- PHIL

A.A. Language Arts & Communication
Select 18 “Degree Appropriate” units from the following related disciplines:

- ENGL
- LIT
- PHIL
- SIGN

A.A. Natural Sciences & Mathematics
Select 18 “Degree Appropriate” units from the following related disciplines:

- AGOR
- ANTH
- CHEM
- CSCI

A.A. Social & Behavioral Sciences
Select 18 “Degree Appropriate” units from the following related disciplines:

- AGGR
- ANTH
- BUSC
- JOUR

Programs of Study Leading to an Associate in Science Degree

For associate in Science Degree majors, see listing on pages 34-35.

Application for Graduation

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

All students intending to receive a degree must file an Application for Graduation with the Admissions and Records office and have on file all required documents and official transcripts. The deadline dates for submitting the Application for Graduation are as follows:

- Fall: deadline to apply for fall graduation is the end of the ninth week.
- Winter: deadline to apply for winter graduation is the end of the ninth week of the fall semester.
- Spring: deadline to apply for spring graduation is the end of the ninth week.
- 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 or earned credit. Each additional degree requires 18 units of coursework beyond the 60 units required for the first degree(s), and must include the satisfactory completion of all the required courses in the additional major. Students awarded additional degrees must meet or complete the current general education requirements in effect at the time of re-entry.

Residency Requirement

The Residency Requirement for Mt. San Antonio College can be met in either of two ways: (1) twelve [12] units in residence and enrollment at Mt. San Antonio College in the last semester or (2) forty-five [45] units in residence, if the last semester is not at Mt. San Antonio College.

NOTE: All courses used for the A.A. degree majors may be doubled counted toward the Mt. San Antonio College General Education requirements.
### ASSOCIATE IN ARTS DEGREE GRADUATION REQUIREMENTS 2007-2008

#### A.A. Degrees in the following majors:
- Social & Behavioral Sciences
- Fine Arts & Humanities
- Language Arts & Communication
- Natural Science & Mathematics

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

#### Major Requirement:
A minimum of 18 units chosen from the appropriate list of courses for the major. A list of the courses found on page 30 of this catalog.

#### Math Competency:
(3 units minimum)
This requirement is met by completing one of the following with a grade of "C" or better.
1. Math 61 Plane Geometry
2. Math 71 Intermediate Algebra
3. MATH 71B Intermediate Algebra – Second Half

#### A.A. Transfer Studies – IGETC:

- **Unit Requirement:** Sixty (60) baccalaureate level (transferable) units are required for graduation. A letter grade of "C" or better is required for each course required for graduation.
- **Major Requirement:** Completion of IGETC Certification Pattern. (see pages 102 - 103)
- **Math Competency:** Satisfied by completing IGETC Certification Pattern. (see pages 98 - 100)

#### General Education Requirements:
Satisfied by completion of CSU G.E. and completion of the CSU U.S. History and American Institutions requirement. (see pages 98-100)

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

#### 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 33-34). All courses must be completed with a grade of "C" or better.

#### A.A. Transfer Studies – CSU:

- **Unit Requirement:** Sixty (60) baccalaureate level (transferable) units are required for graduation. A letter grade of "C" or better is required for each course required for graduation.
- **Major Requirement:** Completion of CSU G.E. Certification Pattern. (see pages 98-100)
- **Math Competency:** Satisfied by completing CSU G.E. certification of Area B-4. (see page 98)
- **GPA Requirement:** A Mt. San Antonio College "degree" total grade point average, "all college" total grade point average, and "baccalaureate" level grade point average of 2.0.

### ASSOCIATE IN SCIENCE DEGREE GRADUATION REQUIREMENTS 2007-2008

#### A.S. Degrees by major are listed on pages 34-35 in this section.

- **Unit Requirement:** Sixty (60) associate degree-appropriate units with a letter grade of "C" or better in all courses required for graduation.
- **Major Requirement:** Satisfied by completing all the required courses in an approved occupational program with a minimum grade of "C" in all courses.
- **Math Competency:** (3 units minimum)

This requirement is met by completing one of the following courses with a grade of "C" or better:
1. AGAG 91 Agricultural Calculations or
2. ELMA 65B Mathematics of Electronics or
3. MATH 51 Elementary Algebra or
4. MATH 51A Elementary Algebra – First Half and
5. MATH 51B Elementary Algebra – Second Half or
6. MATH 52 Algebra with Applications I or
7. MATH 72 Algebra with Applications II or
8. MATH 59 Fundamentals of Applied Mathematics or
9. MATH 61 Plane Geometry or
10. MATH 61B Plane Geometry or
11. MATH 61B Plane Geometry or
12. MATH 61B Plane Geometry or
13. MATH 61B Plane Geometry or
14. MATH 61B Plane Geometry or
15. MATH 61B Plane Geometry or
16. MATH 61B Plane Geometry or
17. MATH 61B Plane Geometry or
18. MATH 61B Plane Geometry or
19. MATH 61B Plane Geometry or
20. MATH 61B Plane Geometry or
21. MATH 61B Plane Geometry or
22. MATH 61B Plane Geometry or
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24. MATH 61B Plane Geometry or
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26. MATH 61B Plane Geometry or
27. MATH 61B Plane Geometry or
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31. MATH 61B Plane Geometry or
32. MATH 61B Plane Geometry or
33. MATH 61B Plane Geometry or
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53. MATH 61B Plane Geometry or
54. MATH 61B Plane Geometry or
55. MATH 61B Plane Geometry or
56. MATH 61B Plane Geometry or
57. MATH 61B Plane Geometry or
58. MATH 61B Plane Geometry or
59. MATH 61B Plane Geometry or
60. MATH 61B Plane Geometry or

#### 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:
- a) 12 units in residence and enrollment in last semester, or
- b) 45 units in residence if the last semester is not at Mt. San Antonio College

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

#### Reading Competency:
This requirement is met by completing one of the following with a grade of "C" or better:
- READ 90 Preparing for College Reading
- AMLA 33R American Language Advanced Reading
or obtaining placement into READ 100 on initial Reading placement exam or obtaining a satisfactory score on the Reading Competency Test.

#### NOTE:
All students must file a petition for graduation with the Admissions & Records Office and have on file all required documents and transcripts.
## Programs Leading to an Associates Degree

### 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 workforce 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 life-long 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:

<table>
<thead>
<tr>
<th>A. Communication and Critical Thinking</th>
</tr>
</thead>
<tbody>
<tr>
<td>B. Science and Mathematics</td>
</tr>
<tr>
<td>C. Arts and Humanities</td>
</tr>
<tr>
<td>D. Social Sciences</td>
</tr>
<tr>
<td>E. Lifelong Understanding and Self-Development</td>
</tr>
</tbody>
</table>

### Criteria for inclusion in each of the above categories are itemized below:

**A. Communication and Critical Thinking**

These courses emphasize both the content and form of communication. They teach students the relationship of language to logic, as well as how to analyze, criticize, and advocate ideas; to reason deductively and inductively; and to reach sound conclusions. Courses fulfilling this requirement:

- provide understanding of the psychological and social significance of communication;
- illustrate how communication operates in various situations;
- focus 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.

Adapted from CSU Executive Order 595 and Title 5 Section 40405.1
<table>
<thead>
<tr>
<th>AREA A:</th>
<th>GENERAL EDUCATION REQUIREMENTS FOR 2007-2008</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Communication in the English Language (6 units):</strong></td>
<td><strong>PHSC 7L</strong> Physical Science Laboratory</td>
</tr>
<tr>
<td>Select two [2] courses from the following:</td>
<td><strong>PHYS 1</strong> Physics</td>
</tr>
<tr>
<td><strong>ENGL 1A</strong> Freshman Composition, or</td>
<td><strong>PHYS 2AG</strong> General Physics</td>
</tr>
<tr>
<td><strong>ENGL 1AH</strong> Freshman Composition — Honors</td>
<td><strong>PHYS 2BG</strong> General Physics</td>
</tr>
<tr>
<td>and</td>
<td><strong>PHYS 4A</strong> Engineering Physics</td>
</tr>
<tr>
<td><strong>SPCH 1A</strong> Public Speaking, or</td>
<td><strong>LIFE SCIENCES</strong></td>
</tr>
<tr>
<td><strong>SPCH 1AH</strong> Public Speaking — Honors</td>
<td><strong>AGOR 1</strong> Horticultural Science</td>
</tr>
<tr>
<td><strong>AREA B:</strong></td>
<td><strong>ANAT 10A</strong> Introductory Human Anatomy</td>
</tr>
<tr>
<td>The Physical Universe and Life (3 units):</td>
<td><strong>ANAT 10B</strong> Introductory Human Physiology</td>
</tr>
<tr>
<td>Select one [1] course from the Physical Sciences or Life Sciences:</td>
<td><strong>ANAT 35</strong> Human Anatomy</td>
</tr>
<tr>
<td><strong>PHYSICS</strong></td>
<td><strong>ANAT 36</strong> Human Physiology</td>
</tr>
<tr>
<td>ASTR 5</td>
<td><strong>ANTH 1</strong> Biological Anthropology</td>
</tr>
<tr>
<td>Introduction to Astronomy</td>
<td><strong>ANTH 1H</strong> Biological Anthropology — Honors</td>
</tr>
<tr>
<td>ASTR 7</td>
<td><strong>ANTH 1L</strong> Biological Anthropology Laboratory</td>
</tr>
<tr>
<td>Geology of the Solar System</td>
<td><strong>BIOL 1</strong> General Biology</td>
</tr>
<tr>
<td>ASTR 8</td>
<td><strong>BIOL 2</strong> Plant and Animal Biology</td>
</tr>
<tr>
<td>Introduction to Stars, Galaxies, and the Universe</td>
<td><strong>BIOL 3</strong> Ecology and Field Biology</td>
</tr>
<tr>
<td><strong>CHEM</strong></td>
<td><strong>BIOL 4</strong> Biology for Majors</td>
</tr>
<tr>
<td>CHEM 10</td>
<td><strong>BIOL 4H</strong> Biology for Majors — Honors</td>
</tr>
<tr>
<td>Chemistry for Allied Health Majors</td>
<td><strong>BIOL 5</strong> Humans and the Environment</td>
</tr>
<tr>
<td>CHEM 20</td>
<td><strong>BIOL 6L</strong> Humans and the Environment Laboratory</td>
</tr>
<tr>
<td>Introductory Organic and Biochemistry</td>
<td><strong>BIOL 17</strong> Neuropathology and Behavior</td>
</tr>
<tr>
<td>CHEM 40</td>
<td><strong>BIOL 20</strong> Marine Biology</td>
</tr>
<tr>
<td>Introduction to General Chemistry</td>
<td><strong>BIOL 21</strong> Marine Biology Laboratory</td>
</tr>
<tr>
<td><strong>MARINE</strong></td>
<td><strong>MIRC 1</strong> Principles of Microbiology</td>
</tr>
<tr>
<td>General Chemistry I</td>
<td><strong>MIRC 22</strong> Microbiology</td>
</tr>
<tr>
<td><strong>CHEM 50</strong></td>
<td><strong>PSYC 1B</strong> Biological Psychology</td>
</tr>
<tr>
<td>General Chemistry I — Honors</td>
<td><strong>MIRC 1</strong> Principles of Microbiology</td>
</tr>
<tr>
<td><strong>CHEM 51</strong></td>
<td><strong>MIRC 22</strong> Microbiology</td>
</tr>
<tr>
<td>General Chemistry II</td>
<td><strong>PSYC 1B</strong> Biological Psychology</td>
</tr>
<tr>
<td><strong>GEOS</strong></td>
<td><strong>PHYSICS</strong></td>
</tr>
<tr>
<td>Elements of Physical Geography</td>
<td><strong>PHSC 7L</strong> Physical Science Laboratory</td>
</tr>
<tr>
<td><strong>GEOL 1L</strong> Physical Geography Laboratory</td>
<td><strong>PHYS 1</strong> Physics</td>
</tr>
<tr>
<td><strong>GEOL 1H</strong> Elements of Physical Geography — Honors</td>
<td><strong>PHYS 2AG</strong> General Physics</td>
</tr>
<tr>
<td><strong>GEOS 1H</strong></td>
<td><strong>PHYS 2BG</strong> General Physics</td>
</tr>
<tr>
<td>Physical Geography Laboratory — Honors</td>
<td><strong>PHYS 4A</strong> Engineering Physics</td>
</tr>
<tr>
<td><strong>AREA C:</strong></td>
<td><strong>LIFE SCIENCES</strong></td>
</tr>
<tr>
<td>Arts and Humanities (6 units):</td>
<td><strong>AGOR 1</strong> Horticultural Science</td>
</tr>
<tr>
<td><strong>ARTS</strong></td>
<td><strong>ANAT 10B</strong> Introductory Human Physiology</td>
</tr>
<tr>
<td><strong>AHIS 1</strong> Understanding the Visual Arts, or</td>
<td><strong>ANAT 35</strong> Human Anatomy</td>
</tr>
<tr>
<td><strong>ARTB 1</strong> Understanding the Visual Arts</td>
<td><strong>ANAT 36</strong> Human Physiology</td>
</tr>
<tr>
<td><strong>AHIS 10</strong> A History of Greek and Roman Art and Architecture</td>
<td><strong>ANTH 1</strong> Biological Anthropology</td>
</tr>
<tr>
<td><strong>AHIS 1H</strong> Understanding the Visual Arts — Honors</td>
<td><strong>ANTH 1H</strong> Biological Anthropology — Honors</td>
</tr>
<tr>
<td><strong>AHIS 2</strong> Topics in Visual Art and Culture</td>
<td><strong>ANTH 1L</strong> Biological Anthropology Laboratory</td>
</tr>
<tr>
<td><strong>AHIS 2H</strong> Topics in Visual Art and Culture — Honors</td>
<td><strong>BIOL 1</strong> General Biology</td>
</tr>
<tr>
<td><strong>AHIS 3</strong> History of Women and Gender in Art</td>
<td><strong>BIOL 2</strong> Plant and Animal Biology</td>
</tr>
<tr>
<td><strong>AHIS 3H</strong> History of Women and Gender in Art — Honors</td>
<td><strong>BIOL 3</strong> Ecology and Field Biology</td>
</tr>
<tr>
<td><strong>AHIS 4</strong> History of Western Art: Prehistoric Through Gothic</td>
<td><strong>BIOL 4</strong> Biology for Majors</td>
</tr>
<tr>
<td><strong>AHIS 4H</strong> History of Western Art: Prehistoric Through Gothic — Honors</td>
<td><strong>ANTH 1</strong> Biological Anthropology</td>
</tr>
<tr>
<td><strong>HUMANITIES</strong></td>
<td><strong>ANCE 1</strong> Biological Anthropology — Honors</td>
</tr>
<tr>
<td><strong>CHIN 1</strong> Elementary Chinese</td>
<td><strong>ANTH 1</strong> Biological Anthropology</td>
</tr>
<tr>
<td><strong>CHIN 2</strong> Continuing Elementary Chinese</td>
<td><strong>ANTH 1</strong> Biological Anthropology</td>
</tr>
<tr>
<td><strong>CHIN 3</strong> Intermediate Chinese</td>
<td><strong>ANTH 1</strong> Biological Anthropology</td>
</tr>
<tr>
<td><strong>CHIN 4</strong> Continuing Intermediate Chinese</td>
<td><strong>ANTH 1</strong> Biological Anthropology</td>
</tr>
<tr>
<td><strong>ENGL 1B</strong> English — Introduction to Literary Types</td>
<td><strong>ARTS</strong></td>
</tr>
<tr>
<td><strong>ENGL 1BH</strong> English — Introduction to Literary Types — Honors</td>
<td><strong>ARTS</strong></td>
</tr>
<tr>
<td><strong>FRCH 1</strong> Elementary French</td>
<td><strong>ARTS</strong></td>
</tr>
<tr>
<td><strong>FRCH 2</strong> Continuing Elementary French</td>
<td><strong>ARTS</strong></td>
</tr>
<tr>
<td><strong>FRCH 3</strong> Intermediate French</td>
<td><strong>ARTS</strong></td>
</tr>
<tr>
<td><strong>FRCH 4</strong> Continuing Intermediate French</td>
<td><strong>ARTS</strong></td>
</tr>
<tr>
<td><strong>FRCH 5</strong> Advanced French</td>
<td><strong>ARTS</strong></td>
</tr>
<tr>
<td><strong>FRCH 6</strong> Continuing Advanced French</td>
<td><strong>ARTS</strong></td>
</tr>
<tr>
<td><strong>FRCH 60</strong> French Culture Through Cinema</td>
<td><strong>ARTS</strong></td>
</tr>
<tr>
<td><strong>GERM 1</strong> Elementary German</td>
<td><strong>ARTS</strong></td>
</tr>
<tr>
<td><strong>GERM 2</strong> Continuing Elementary German</td>
<td><strong>ARTS</strong></td>
</tr>
<tr>
<td><strong>GERM 3</strong> Intermediate German</td>
<td><strong>ARTS</strong></td>
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</tbody>
</table>

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

<table>
<thead>
<tr>
<th>General Education Requirements for 2007-2008 (continued)</th>
</tr>
</thead>
<tbody>
<tr>
<td>LIT 15 Introduction to Cinema</td>
</tr>
<tr>
<td>LIT 20 African American Literature</td>
</tr>
<tr>
<td>LIT 25 Contemporary Mexican American Literature</td>
</tr>
<tr>
<td>LIT 33 Images of Women in Literature</td>
</tr>
<tr>
<td>LIT 35 Science Fiction and Fantasy Survey</td>
</tr>
<tr>
<td>LIT 36 Introduction to Mythology</td>
</tr>
<tr>
<td>LIT 40 Children's Literature</td>
</tr>
<tr>
<td>LIT 46 The Bible as Literature: Old Testament</td>
</tr>
<tr>
<td>LIT 47 The Bible as Literature: New Testament</td>
</tr>
<tr>
<td>PHIL 5 Introduction to Philosophy</td>
</tr>
<tr>
<td>PHIL 12 Ethics</td>
</tr>
<tr>
<td>PHIL 12H Ethics — Honors</td>
</tr>
<tr>
<td>PHIL 15 Major World Religions</td>
</tr>
<tr>
<td>PHIL 15H Major World Religions — Honors</td>
</tr>
<tr>
<td>PHIL 20A History of Western Philosophy</td>
</tr>
<tr>
<td>PHIL 20B History of Western Philosophy</td>
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<tr>
<td>SIGN 101 American Sign Language 1</td>
</tr>
<tr>
<td>SIGN 102 American Sign Language 2</td>
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<td>SIGN 103 American Sign Language 3</td>
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<tr>
<td>SIGN 104 American Sign Language 4</td>
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<td>SIGN 202 American Deaf Culture</td>
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<td>SPAN 2 Continuing Elementary Spanish</td>
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<td>SPAN 3 Intermediate Spanish</td>
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<td>SPAN 4 Continuing Intermediate Spanish</td>
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<td>SPAN 11 Spanish for the Spanish Speaking</td>
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<tr>
<td>SPAN 12 Continuing Spanish for the Spanish Speaking</td>
</tr>
<tr>
<td>SPAN 25 Spanish Literature</td>
</tr>
</tbody>
</table>

**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                     |
*HIST 44 History of Native Americans                         |
POLI 1 Political Science                                     |

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

*AGGR 1 Food Production, Land Use and Politics — A Global Perspective
*AGGR 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 — Microeconomics             |
BUSC 1AH Principles of Economics — Macroeconomics            |
BUSC 1BH Principles of Economics — Microeconomics            |
BUSC 1BH Principles of Economics — Microeconomics            |
CHILD 1 Child, Family, and Community                          |
CHILD 10 Child Growth and Development                        |
CHILD 10H Child Growth and Development — Honors              |
GEOG 2 Human Geography                                       |
GEOG 2H Human Geography — Honors                             |
GEOG 5 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                                   |
JOUR 100 Mass Media and Society                              |
JOUR 107 Race, Culture, Sex, and Mass Media Images           |
POLI 2 Political Science                                     |
POLI 5 Political Science                                     |
POLI 9 Introduction to International Relations               |
PSYC 1A Introduction to Psychology                            |
PSYC 1AH Introduction to Psychology — Honors                 |
PSYC 19 Abnormal Psychology                                   |
*PSYC 25 The Psychology of Women                              |
SOC 1 Sociology                                              |

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

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### General Education Requirements for 2007-2008 (continued)

<table>
<thead>
<tr>
<th>General Education Requirements for 2007-2008 (continued)</th>
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</thead>
<tbody>
<tr>
<td>SOC 1H Sociology — Honors</td>
</tr>
<tr>
<td>SOC 2 Sociology</td>
</tr>
<tr>
<td>SOC 2H Sociology — Honors</td>
</tr>
<tr>
<td>SOC 4 Introduction to Gerontology</td>
</tr>
<tr>
<td>SOC 5 Introduction to Criminology</td>
</tr>
<tr>
<td>SOC 14 Marriage and the Family</td>
</tr>
<tr>
<td>SOC 15 Child Development</td>
</tr>
<tr>
<td>SOC 20 Sociology of Ethnic Relations</td>
</tr>
<tr>
<td>SOC 20H Sociology of Ethnic Relations — Honors</td>
</tr>
<tr>
<td>SPCH 7 Intercultural Communication</td>
</tr>
<tr>
<td>SPCH 26 Interpersonal Communication</td>
</tr>
<tr>
<td>SPCH 26H Interpersonal Communication — Honors</td>
</tr>
</tbody>
</table>

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

AD 3 Chemical Dependency: Intervention, Treatment and Recovery
PSY 5 Contemporary Health Issues

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

### Alphabetical Listing — Associate in Science Degree (A.S.)

<table>
<thead>
<tr>
<th>Alphabetical Listing — Associate in Science Degree (A.S.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 13 Human Reproduction, Development and Aging</td>
</tr>
<tr>
<td>BIOL 15H Human Sexuality — Honors</td>
</tr>
<tr>
<td>CHLD 10 Child Growth and Development — Honors</td>
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<tr>
<td>*CHLD 10H Child Growth and Development — Honors</td>
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<tr>
<td>*COUN 5 Career/Life Planning</td>
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<tr>
<td>*COUN 5 Career/Life Planning</td>
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<tr>
<td>FCS 41 Life Management</td>
</tr>
<tr>
<td>LEAD 55 Exploring Leadership</td>
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<tr>
<td>NF 10 Nutrition for Personal Health</td>
</tr>
<tr>
<td>and Wellness</td>
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<tr>
<td>NF 25 Essentials of Nutrition</td>
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<tr>
<td>NF 25H Essentials of Nutrition — Honors</td>
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<tr>
<td>NF 28 Cultural and Ethnic Foods</td>
</tr>
<tr>
<td>PE 34 Fitness for Living</td>
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<tr>
<td>PSYC 14 Developmental Psychology</td>
</tr>
<tr>
<td>*PSYC 25 The Psychology of Women</td>
</tr>
<tr>
<td>PSYC 26 Psychology of Sexuality</td>
</tr>
<tr>
<td>PSYC 33 Psychology for Effective Living</td>
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</tbody>
</table>

Mt. San Antonio College offers two year occupational degrees which are described in the section of the Catalog. The degrees meet the degree requirements for the Associate in Science Degree major. Additional general education courses needed for completion of the degree requirements are listed in Section 3 — Academic Information and Requirements of this Catalog. For further information, please consult with the Career Counseling office on the upper level of the Student Services Center.

<table>
<thead>
<tr>
<th>A</th>
<th>B - C</th>
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</thead>
<tbody>
<tr>
<td>Accounting</td>
<td>36</td>
</tr>
<tr>
<td>Administrative Assistant</td>
<td>36</td>
</tr>
<tr>
<td>Advertising Design and Illustration</td>
<td>36</td>
</tr>
<tr>
<td>Agri-Technology</td>
<td>36</td>
</tr>
<tr>
<td>Air Conditioning and Refrigeration</td>
<td>37</td>
</tr>
<tr>
<td>Airframe and Aircraft Powerplant</td>
<td>37</td>
</tr>
<tr>
<td>Maintenance Technology</td>
<td>37</td>
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<tr>
<td>Maintenance Technology — Day</td>
<td>37</td>
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<tr>
<td>Maintenance Technology — Evening</td>
<td>37</td>
</tr>
<tr>
<td>Alcohol/Drug Counseling</td>
<td>38</td>
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<tr>
<td>Animation</td>
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<td>Architectural Technology</td>
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<tr>
<td>Aviation Science</td>
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<tr>
<td>Biomedical Engineering</td>
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<tr>
<td>Business: Management</td>
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<tr>
<td>Business: Retail Management</td>
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<tr>
<td>Chemical Laboratory Technician</td>
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</tr>
<tr>
<td>Child Development</td>
<td>39</td>
</tr>
<tr>
<td>Commercial Flight</td>
<td>40</td>
</tr>
<tr>
<td>Computer Graphics Design/Photography</td>
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</tr>
<tr>
<td>Computer Network Administration and Security Management</td>
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<tr>
<td>Computer Programmer — C++</td>
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<tr>
<td>Computer Programmer — Database</td>
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<tr>
<td>Computer Programmer — Telecommunications</td>
<td>41</td>
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<tr>
<td>Computer Programmer — Visual Basic</td>
<td>41</td>
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<tr>
<td>Construction Inspection</td>
<td>42</td>
</tr>
<tr>
<td>Correctional Sciences</td>
<td>42</td>
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</tbody>
</table>
**ALPHABETICAL LISTING — ASSOCIATE IN SCIENCE DEGREE (A.S.) (continued)**

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
</tr>
</thead>
<tbody>
<tr>
<td>Desktop Publishing</td>
<td>42</td>
<td>Educational Paraprofessional</td>
<td>42</td>
<td>Electronics and Computer Engineering Technology</td>
</tr>
<tr>
<td>Emergency Medical Services</td>
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<td>Engineering Design Technology</td>
<td>43</td>
<td>Equipment Technology</td>
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<tr>
<td>Escrow Management</td>
<td>44</td>
<td>F</td>
<td>G</td>
<td>H</td>
</tr>
<tr>
<td>Family and Consumer Sciences</td>
<td>44</td>
<td>Fashion Design</td>
<td>44</td>
<td>Fashion Merchandising</td>
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<td>Fire Technology</td>
<td>45</td>
<td>Fire Technology — Administration</td>
<td>45</td>
<td>Fire Technology — Administrative Communications</td>
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<tr>
<td>Fire Technology — Fire Management</td>
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<td>Fire Technology — Fire Prevention</td>
<td>46</td>
<td>Fire Technology — Fire Training</td>
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<td>Fire Technology — Private Fire Service</td>
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<td>Floral Design</td>
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<td>G</td>
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<tr>
<td>General Business</td>
<td>47</td>
<td>Histologic Technician Training</td>
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<td>Horse Ranch Management</td>
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<tr>
<td>Interior Design</td>
<td>48</td>
<td>Interior Design — Kitchen and Bath Design</td>
<td>48</td>
<td>International Business</td>
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<tr>
<td>Law Enforcement</td>
<td>49</td>
<td>Licensed Vocational Nurse to RN</td>
<td>49</td>
<td>Livestock Management</td>
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<tr>
<td>M</td>
<td>N</td>
<td>O</td>
<td>P</td>
<td>Q</td>
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<tr>
<td>Manufacturing Technology</td>
<td>50</td>
<td>Marketing Management</td>
<td>50</td>
<td>Mental Health Technology — Psychiatric Technician</td>
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<tr>
<td>Nursing</td>
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<td>O</td>
<td>Q</td>
<td>R</td>
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<tr>
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<td>Paralegal/Legal — Bankruptcy Specialty</td>
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<td>Paralegal/Legal — Corporations/Business Specialty</td>
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<tr>
<td>Paralegal/Legal — Criminal Specialty</td>
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<td>Paralegal/Legal — Family Law Specialty</td>
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<td>Paralegal/Legal — Landlord/Tenant Specialty</td>
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<tr>
<td>Park &amp; Sports Turf Management</td>
<td>55</td>
<td>Pet Science</td>
<td>55</td>
<td>Physical Education</td>
</tr>
<tr>
<td>Psychiatric Technician to RN</td>
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<td>R</td>
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<td>Radio Broadcasting: Behind the Scenes</td>
<td>57</td>
<td>Radio Broadcasting: On the Air</td>
<td>57</td>
<td>Radiologic Technology</td>
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<td>Real Estate</td>
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<td>Real Estate Appraisal</td>
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<td>Registered Veterinary Technology</td>
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<tr>
<td>Respiratory Therapy</td>
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<td>U</td>
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<tr>
<td>Sign Language/Interpreting</td>
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<td>Small Business Management</td>
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<td>Televison Production</td>
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<tr>
<td>Welding</td>
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<td>X</td>
<td>Y</td>
<td>Z</td>
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<tr>
<td>Zoning and Building Inspector</td>
<td>61</td>
<td>Zoning and Building Inspector</td>
<td>61</td>
<td></td>
</tr>
</tbody>
</table>
Programs Leading to an Associates Degree

**Accounting**

**Accounting and Management Department**

**Major 20502**

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:**

- BUSO 5 Business English 3.0 CSU, UC
- BUSO 25 Business Communications 3.0 CSU
- BUSO 26 Oral Communications for Business 3.0
- COMP 2 Intermediate Computer Keyboarding 4.0
- COMP 12 Office Computer Applications, or 4.0 CSU, UC
- CISB 15 Microcomputer Applications 4.0 CSU, UC
- COMP 20 Word for the Business Professional 4.0
- COMP 28 Office Management Skills 3.0
- COMP 50 Desktop Presentations using PowerPoint 4.0 CSU
- COMP 68 Transcription Techniques 3.0

**PLUS**

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

- BUSO 55 Business Law 3.0 CSU, UC
- BUSO 57 Business Law 3.0 CSU
- BUSO 58 Federal Income Tax Law 3.0
- BUSO 70 Payroll and Tax Accounting 3.0
- BUSO 75 Using Microcomputers in Accounting 1.0
- BUSO 81 Work Experience in Accounting 1.0
- BUSO 86 Using Microcomputers in Managerial Accounting, or 1.0
- BUSO 87 Work Experience in Accounting 1.0
- BUSO 88 Using Microcomputers in Managerial Accounting, or 1.0
- BUSO 89 Work Experience in Accounting 1.0
- BUSO 90 Business Principles of Business 3.0 CSU, UC
- BUSO 91 Business Communications 3.0 CSU
- CISB 15 Microcomputer Applications 4.0 CSU

**Total Units** 33.0 - 35.0

**Administrative Assistant**

**Office Technology Department**

**Major 20514**

This program is intended to prepare students for employment following graduation as administrative assistants, executive assistants, office managers, or other clerical and support staff. Training in a variety of computer and clerical skills is emphasized. Students desiring a Bachelor’s Degree (transfer program) should consult with a counselor to discuss transferability of courses.

**Requirements for the Major**

**Required courses:**

- ARTD 15A Drawing: Beginning 3.0 CSU, UC
- ARTD 17A Drawing: Life 3.0 CSU, UC
- ARTD 20 Design: Two Dimensional 3.0 CSU, UC
- ARTD 25A Painting: Beginning 3.0 CSU, UC

**PLUS**

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

- AHIS 5 History of Western Art: Prehistoric Through Gothic 3.0 CSU, UC
- ANIM 172 Motion Graphics with After Effects 3.0
- ANIM 175 Web Animation with Flash 3.0
- ARTC 77 Computer Graphics: Illustration 3.0
- ARTC 78A Work Experience in Advertising Design/ Illustration 3.0
- ARTC 78B Work Experience in Advertising Design/ Illustration 3.0
- ARTC 78C Work Experience in Advertising Design/ Illustration 3.0
- 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

**Total Units** 33.0 - 34.0

The following programs list all courses needed to satisfy major requirements. Students may obtain certificates upon completion of required courses listed. Additional courses needed for completion of the Associate in Science Degree are listed in this Catalog. It is recommended that all students consult with the department chairperson, faculty advisor, or counselor to file an educational plan.

**Requirements for the Major**

**Required courses:**

- 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 91 Agricultural Calculations 3.0
- AGAN 1 Animal Science 3.0 CSU, UC
- AGOR 1 Horticultural Science 3.0 CSU
- AGOR 32 Landscaping and Nursery Management 3.0 CSU
- AGOR 56 Engine Diagnostics 3.0 CSU
- AGOR 71 Landscape Construction Fundamentals 3.0 CSU

**PLUS**

**Select three (3) courses from:**

- AGFR 20 Conservation of Natural Resources 3.0 CSU, UC
- 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
- AGR 24 Integrated Pest Management 3.0 CSU
- AGR 62 Landscape Irrigation – Design and Installation 3.0 CSU
- AGPE 70 Pet Shop Management 3.0
- AGPE 71 Canine Management 3.0

**Total Units** 33.0 - 34.0
**Air Conditioning and Refrigeration**

**Air Conditioning, Water & Welding Technologies Major 20909**

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

**Requirements for the Major**

**Required courses:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AIRM 10</td>
<td>Technical Mathematics in Air Conditioning and Refrigeration</td>
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<tr>
<td>AIRM 11</td>
<td>Welding for Air Conditioning and Refrigeration</td>
<td>2.0</td>
</tr>
<tr>
<td>AIRM 12</td>
<td>Air Conditioning Codes and Standards</td>
<td>3.0</td>
</tr>
<tr>
<td>AIRM 20</td>
<td>Refrigeration Fundamentals</td>
<td>3.0</td>
</tr>
<tr>
<td>AIRM 25</td>
<td>Electrical Fundamentals for Air Conditioning and Refrigeration</td>
<td>4.0</td>
</tr>
<tr>
<td>AIRM 26A</td>
<td>Heat Pump Fundamentals</td>
<td>1.5</td>
</tr>
<tr>
<td>AIRM 26B</td>
<td>Gas Heating Fundamentals</td>
<td>2.0</td>
</tr>
<tr>
<td>AIRM 30</td>
<td>Heat Load Calculations</td>
<td>3.0</td>
</tr>
<tr>
<td>AIRM 31</td>
<td>Commercial Electrical for Air Conditioning and Refrigeration</td>
<td>4.0</td>
</tr>
<tr>
<td>AIRM 32A</td>
<td>Air Properties and Measurement</td>
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<tr>
<td>AIRM 32B</td>
<td>Air Distribution Systems</td>
<td>1.5</td>
</tr>
<tr>
<td>AIRM 34</td>
<td>Advanced Mechanical Refrigeration</td>
<td>4.0</td>
</tr>
<tr>
<td>AIRM 37</td>
<td>Pneumatic Controls</td>
<td>2.0</td>
</tr>
<tr>
<td>AIRM 39</td>
<td>Building Automation Systems</td>
<td>4.0</td>
</tr>
</tbody>
</table>

**Total Units 37.5**

**Airframe and Aircraft Powerplant Maintenance Technology – Day**

**Aircraft Maintenance Technology & Manufacturing Department Major 20911**

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 and one certificate in Aircraft Powerplant Maintenance Technology. Excellent opportunities for employment exist in this area of training. Certain administrative, quality control, and flight personnel careers require the applicant to hold a valid A & P Certificate.

This program offers a day (full-time) or evening (part-time) program option. The only difference between the two options is the course numbering and time required to complete the program. Day program courses AIRM 65A and 65B are equivalent to evening program courses AIRM 95A, 95B, 96A, 96B, 97A, 97B, 98A, and 98B. Day program courses AIRM 66A and 66B are equivalent to evening program courses AIRM 90A, 90B, 91A, 91B, 92A, 92B, 93A, and 93B. The evening program courses are offered in 9-week modules.

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

**Requirements for the Major**

**Required courses:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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<td>Airframe Maintenance Technology</td>
<td>12.0</td>
</tr>
<tr>
<td>AIRM 70A</td>
<td>Aircraft Maintenance Electricity and Electronics</td>
<td>3.0</td>
</tr>
<tr>
<td>AIRM 70B</td>
<td>Aircraft Maintenance Electricity and Electronics</td>
<td>3.0</td>
</tr>
<tr>
<td>AIRM 71</td>
<td>Aviation Maintenance Science</td>
<td>6.0</td>
</tr>
</tbody>
</table>

**Total Units 63.0**

**Recommended Electives:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AIRM 74</td>
<td>Aircraft Maintenance Technology — Work Experience</td>
<td></td>
</tr>
<tr>
<td>AIRM 80</td>
<td>Lab Studies in Aircraft Maintenance Technology</td>
<td></td>
</tr>
<tr>
<td>AIRM 81</td>
<td>Lab Studies in Aircraft Maintenance Technology</td>
<td></td>
</tr>
</tbody>
</table>

**Airframe and Aircraft Powerplant Maintenance Technology – Evening**

**Aircraft Maintenance Technology & Manufacturing Department Major 20951**

This program prepares students to enter employment as a certified airframe and powerplant technician in the aircraft maintenance industry. Training is given in the overhaul of various airframes and powerplants and their components. Completion of this program leads to an Associate in Science Degree. Two state-awarded certificates are also available upon successful completion of this program — one certificate in Airframe Maintenance Technology and one certificate in Aircraft Powerplant Maintenance Technology. Excellent opportunities for employment exist in this area of training. Certain administrative, quality control, and flight personnel careers require the applicant to hold a valid A & P Certificate.

This program offers a day (full-time) or evening (part-time) program option. The only difference between the two options is the course numbering and time required to complete the program. Day program courses AIRM 65A and 65B are equivalent to evening program courses AIRM 95A, 95B, 96A, 96B, 97A, 97B, 98A, and 98B. Day program courses AIRM 66A and 66B are equivalent to evening program courses AIRM 90A, 90B, 91A, 91B, 92A, 92B, 93A, and 93B. The evening program courses are offered in 9-week modules.

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

**Requirements for the Major**

**Required courses:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AIRM 65A</td>
<td>Aircraft Powerplant Maintenance Technology</td>
<td>12.0</td>
</tr>
<tr>
<td>AIRM 65B</td>
<td>Aircraft Powerplant Maintenance Technology</td>
<td>12.0</td>
</tr>
<tr>
<td>AIRM 66A</td>
<td>Airframe Maintenance Technology</td>
<td>12.0</td>
</tr>
<tr>
<td>AIRM 66B</td>
<td>Airframe Maintenance Technology</td>
<td>12.0</td>
</tr>
<tr>
<td>AIRM 70A</td>
<td>Aircraft Maintenance Electricity and Electronics</td>
<td>3.0</td>
</tr>
<tr>
<td>AIRM 70B</td>
<td>Aircraft Maintenance Electricity and Electronics</td>
<td>3.0</td>
</tr>
<tr>
<td>AIRM 71</td>
<td>Aviation Maintenance Science</td>
<td>6.0</td>
</tr>
</tbody>
</table>

**Technical Engineering Drawing II**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELEC 90</td>
<td>Survey of Electronics</td>
<td></td>
</tr>
<tr>
<td>MFG 70</td>
<td>Technical Mathematics – Manufacturing Applications</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHYS 1</td>
<td>Physics</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AIRM 72</td>
<td>Aviation Materials and Processes</td>
<td>1.5</td>
</tr>
<tr>
<td>AIRM 73</td>
<td>Aviation Welding</td>
<td>1.5</td>
</tr>
<tr>
<td>AIRM 90A</td>
<td>Aircraft Maintenance Technology</td>
<td>3.0</td>
</tr>
<tr>
<td>AIRM 90B</td>
<td>Aircraft Maintenance Technology</td>
<td>3.0</td>
</tr>
<tr>
<td>AIRM 91A</td>
<td>Aircraft Maintenance Technology</td>
<td>3.0</td>
</tr>
<tr>
<td>AIRM 91B</td>
<td>Aircraft Maintenance Technology</td>
<td>3.0</td>
</tr>
<tr>
<td>AIRM 92A</td>
<td>Aircraft Maintenance Technology</td>
<td>3.0</td>
</tr>
<tr>
<td>AIRM 92B</td>
<td>Aircraft Maintenance Technology</td>
<td>3.0</td>
</tr>
<tr>
<td>AIRM 93A</td>
<td>Aircraft Maintenance Technology</td>
<td>3.0</td>
</tr>
<tr>
<td>AIRM 93B</td>
<td>Aircraft Maintenance Technology</td>
<td>3.0</td>
</tr>
<tr>
<td>AIRM 95A</td>
<td>Aircraft Powerplant Maintenance Technology</td>
<td>3.0</td>
</tr>
<tr>
<td>AIRM 95B</td>
<td>Aircraft Powerplant Maintenance Technology</td>
<td>3.0</td>
</tr>
<tr>
<td>AIRM 96A</td>
<td>Aircraft Powerplant Maintenance Technology</td>
<td>3.0</td>
</tr>
<tr>
<td>AIRM 96B</td>
<td>Aircraft Powerplant Maintenance Technology</td>
<td>3.0</td>
</tr>
<tr>
<td>AIRM 97A</td>
<td>Aircraft Powerplant Maintenance Technology</td>
<td>3.0</td>
</tr>
<tr>
<td>AIRM 97B</td>
<td>Aircraft Powerplant Maintenance Technology</td>
<td>3.0</td>
</tr>
<tr>
<td>AIRM 98A</td>
<td>Aircraft Powerplant Maintenance Technology</td>
<td>3.0</td>
</tr>
<tr>
<td>AIRM 98B</td>
<td>Aircraft Powerplant Maintenance Technology</td>
<td>3.0</td>
</tr>
</tbody>
</table>

**Total Units 63.0**

**Recommended Electives:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AIRM 74</td>
<td>Aircraft Maintenance Technology — Work Experience</td>
<td></td>
</tr>
<tr>
<td>AIRM 80</td>
<td>Lab Studies in Aircraft Maintenance Technology</td>
<td></td>
</tr>
<tr>
<td>AIRM 81</td>
<td>Lab Studies in Aircraft Maintenance Technology</td>
<td></td>
</tr>
<tr>
<td>EDT 12</td>
<td>Technical Engineering Drawing II</td>
<td></td>
</tr>
<tr>
<td>ELEC 90</td>
<td>Survey of Electronics</td>
<td></td>
</tr>
<tr>
<td>MFG 70</td>
<td>Technical Mathematics – Manufacturing Applications</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHYS 1</td>
<td>Physics</td>
<td></td>
</tr>
</tbody>
</table>
Programs Leading to an Associates Degree

Alcohol/Drug Counseling
Public Services Department
Major 22101

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

Requirements for the Major

Required core courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AD 1</td>
<td>3.0</td>
<td>Alcohol/Drug Dependency</td>
</tr>
<tr>
<td>AD 2</td>
<td>3.0</td>
<td>Physiological Effects of Alcohol/Drugs</td>
</tr>
<tr>
<td>AD 3</td>
<td>3.0</td>
<td>Chemical Dependency: Intervention, Treatment and Recovery</td>
</tr>
<tr>
<td>AD 4</td>
<td>3.0</td>
<td>Issues in Domestic Violence</td>
</tr>
<tr>
<td>AD 5</td>
<td>1.5</td>
<td>Chemical Dependency: Prevention and Education</td>
</tr>
<tr>
<td>AD 6</td>
<td>3.0</td>
<td>Dual Diagnosis</td>
</tr>
</tbody>
</table>

Required skill courses:

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

Required field work courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AD 13</td>
<td>3.5</td>
<td>Internship/Seminar</td>
</tr>
<tr>
<td>AD 14</td>
<td>3.5</td>
<td>Advanced Internship/Seminar</td>
</tr>
</tbody>
</table>

PLUS

Select six (6) units from:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHLD 10</td>
<td>3.0</td>
<td>Child Growth and Development, or</td>
</tr>
<tr>
<td>CHLD 10H</td>
<td>3.0</td>
<td>Child Growth and Development – Honors</td>
</tr>
<tr>
<td>PSYC 1A</td>
<td>3.0</td>
<td>General Psychology, or</td>
</tr>
<tr>
<td>PSYC 1AH</td>
<td>3.0</td>
<td>General Psychology – Honors</td>
</tr>
<tr>
<td>PSYC 19</td>
<td>3.0</td>
<td>Abnormal Psychology</td>
</tr>
<tr>
<td>SOC 1</td>
<td>3.0</td>
<td>Sociology, or</td>
</tr>
<tr>
<td>SOC 1H</td>
<td>3.0</td>
<td>Sociology – Honors</td>
</tr>
<tr>
<td>SOC 14</td>
<td>3.0</td>
<td>Marriage and the Family</td>
</tr>
<tr>
<td>SOC 15</td>
<td>3.0</td>
<td>Child Development</td>
</tr>
</tbody>
</table>

Total Units 40.0

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:

a. Restricted Electives must be taken prior to enrollment in Field Experience.

b. Restricted Electives can be taken in conjunction with core and skills courses.

c. Refer to Schedule of Credit Classes for sequence of courses.

d. For questions call Professor Paul Sharpe at ext. 4654 or the division office at ext. 4750.

Animation
Art Department
Major 21006

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:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANIM 101</td>
<td>3.0</td>
<td>Drawing – Gesture and Figure</td>
</tr>
<tr>
<td>ANIM 104</td>
<td>3.0</td>
<td>Drawing Fundamentals, or</td>
</tr>
<tr>
<td>ARTD 15A</td>
<td>3.0</td>
<td>Drawing: Beginning</td>
</tr>
<tr>
<td>ANIM 108</td>
<td>3.0</td>
<td>Principles of Animation</td>
</tr>
<tr>
<td>ANIM 115</td>
<td>3.0</td>
<td>Storyboarding</td>
</tr>
<tr>
<td>ANIM 116</td>
<td>1.5</td>
<td>Character Development</td>
</tr>
<tr>
<td>ANIM 119</td>
<td>1.5</td>
<td>Portfolio</td>
</tr>
<tr>
<td>ANIM 130</td>
<td>3.0</td>
<td>Introduction to 3-D Computer Animation</td>
</tr>
<tr>
<td>ARTC 70</td>
<td>3.0</td>
<td>Computer Graphics: Introduction</td>
</tr>
<tr>
<td>ARTD 17A</td>
<td>3.0</td>
<td>Drawing: Life</td>
</tr>
<tr>
<td>ARTS 20</td>
<td>3.0</td>
<td>Design: Two Dimensional</td>
</tr>
<tr>
<td>ARTS 22</td>
<td>3.0</td>
<td>Design: Three-Dimensional</td>
</tr>
</tbody>
</table>

PLUS

Select two (2) courses from:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANIM 117</td>
<td>3.0</td>
<td>Animation Background Layout</td>
</tr>
<tr>
<td>ANIM 120</td>
<td>3.0</td>
<td>Script Development for Animation</td>
</tr>
<tr>
<td>ANIM 132</td>
<td>3.0</td>
<td>Modeling, Texture Mapping and Lighting</td>
</tr>
<tr>
<td>ANIM 175</td>
<td>3.0</td>
<td>Web Animation with Flash</td>
</tr>
<tr>
<td>ARTD 16</td>
<td>3.0</td>
<td>Drawing: Perspective</td>
</tr>
</tbody>
</table>

Total Units 36.0

Recommended Electives:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AHS 4</td>
<td>3.0</td>
<td>History of Western Art: Prehistoric Through Gothic</td>
</tr>
<tr>
<td>AHS 5</td>
<td>3.0</td>
<td>History of Western Art: Renaissance Through Modern</td>
</tr>
<tr>
<td>ANIM 107</td>
<td>3.0</td>
<td>Figure in Motion</td>
</tr>
<tr>
<td>ANIM 109</td>
<td>3.0</td>
<td>Advanced Principles of Animation</td>
</tr>
<tr>
<td>ANIM 111</td>
<td>3.0</td>
<td>Animal Drawing</td>
</tr>
<tr>
<td>ANIM 118</td>
<td>3.0</td>
<td>Background Painting</td>
</tr>
<tr>
<td>ANIM 120</td>
<td>3.0</td>
<td>Script Development for Animation</td>
</tr>
<tr>
<td>ANIM 134</td>
<td>3.0</td>
<td>Dynamic Digital Environments</td>
</tr>
<tr>
<td>ANIM 135</td>
<td>3.0</td>
<td>Visual Effects II: Particle Systems</td>
</tr>
<tr>
<td>ANIM 148</td>
<td>3.0</td>
<td>Demo-Reel</td>
</tr>
<tr>
<td>ARTD 25A</td>
<td>3.0</td>
<td>Painting: Beginning</td>
</tr>
</tbody>
</table>

Architectural Technology
Architecture and Engineering
Design Department
Major 21001

This program is intended to prepare 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. The student will be required to develop both design and working drawing portfolios. Current technology and computer (CADD) skills are integrated into the program. A certificate program is also available.

Requirements for the Major

Required courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARCH 10</td>
<td>3.0</td>
<td>Design I – Elements of Design</td>
</tr>
<tr>
<td>ARCH 11</td>
<td>3.0</td>
<td>Architectural Drawing</td>
</tr>
<tr>
<td>ARCH 12</td>
<td>3.0</td>
<td>Architectural Materials and Specifications</td>
</tr>
<tr>
<td>ARCH 13</td>
<td>3.0</td>
<td>Architectural Illustration</td>
</tr>
<tr>
<td>ARCH 14</td>
<td>3.0</td>
<td>Building and Zoning Codes</td>
</tr>
<tr>
<td>ARCH 15</td>
<td>3.0</td>
<td>Architectural Working Drawings – I</td>
</tr>
</tbody>
</table>

Recommended Electives:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARTA, ARTD, ARTS, and ID courses are recommended for transfer portfolios.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The Architectural Technology Faculty recommend that students complement their studies with selected elective courses chosen from the list above. Students should meet with a professor of Architectural Technology to help them determine which electives would best suit their career plans.

Aviation Science
Aeronautics and Transportation Department
Major 20910

This curriculum meets the requirements of the Federal Aviation Administration Collegiate Training Initiative (CTI). Under an educational partnership agreement with the FAA, this CTI program prepares students for broad-based aviation careers. Students completing this CTI program may be recommended by the college for hiring by the FAA as air traffic controllers.
### Business: Retail Management

**Accounting and Management Department Major 20509**

This program exposes students to the business world and the role of retail distribution. Students become familiar with careers in retail management as well as the latest trends in this fast-changing field. Completion of this program aids the student's search for an entry-level job in retail management.

#### Requirements for the Major

<table>
<thead>
<tr>
<th>Required courses:</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUSM 81 Work Experience in Business, or</td>
</tr>
<tr>
<td>BUSM 82 Work Experience in Business, or</td>
</tr>
<tr>
<td>BUSM 83 Work Experience in Business, or</td>
</tr>
<tr>
<td>BUSM 84 Work Experience in Business, or</td>
</tr>
<tr>
<td>BUSM 85 Special Issues in Business, or</td>
</tr>
<tr>
<td>BUSM 86 Special Issues in Marketing</td>
</tr>
</tbody>
</table>

#### Business: Retail Management Accounting and Management Department Major 20509

<table>
<thead>
<tr>
<th>Recommended Electives:</th>
</tr>
</thead>
<tbody>
<tr>
<td>AIRT 43 Air Traffic Control Team Skills</td>
</tr>
<tr>
<td>CSIS 11 Computer Information Systems</td>
</tr>
<tr>
<td>TRAN 17 Air Transportation</td>
</tr>
</tbody>
</table>

#### Total Units 31.0

### Business: Retail Management

**Accounting and Management Department Major 20506**

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

<table>
<thead>
<tr>
<th>Required courses:</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUSA 7 Principles of Accounting – Financial</td>
</tr>
<tr>
<td>BUSA 11 Fundamentals of Accounting</td>
</tr>
<tr>
<td>BUSM 60 Human Relations in Business</td>
</tr>
<tr>
<td>BUSM 61 Business Organization and Management</td>
</tr>
<tr>
<td>BUSM 62 Human Resource Management</td>
</tr>
<tr>
<td>BUSS 25 Business Communications</td>
</tr>
<tr>
<td>BUSS 26 Oral Communications for Business</td>
</tr>
<tr>
<td>BUSS 36 Principles of Marketing</td>
</tr>
<tr>
<td>CISB 15 Microcomputer Applications</td>
</tr>
<tr>
<td>FASH 62 Retail Store Management and Mechanical, or</td>
</tr>
<tr>
<td>BUSS 50 Retail Store Management and Merchandising</td>
</tr>
</tbody>
</table>

#### Total Units 33.0

### Chemical Laboratory Technician

**Biological Sciences Department Major 20950**

This program provides theoretical and technical training to prepare students for employment as entry-level chemical technicians in fields such as chemical quality control, chemical process control, analytical chemistry, water quality, and research and development. The program includes a broad-based overview of workplace options and emphasizes development of analytical skills, instrument proficiency, critical thinking, and troubleshooting of experimental designs and outcomes.

#### Requirements for the Major

<table>
<thead>
<tr>
<th>Required courses:</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUSM 10 Principles of Continuous Quality Improvement</td>
</tr>
<tr>
<td>CHEM 20 Introductory Organic and Biochemistry</td>
</tr>
<tr>
<td>CHEM 50 General Chemistry I</td>
</tr>
<tr>
<td>CHEM 51 General Chemistry II</td>
</tr>
<tr>
<td>CHEM 60 Quantitative Chemical Analysis</td>
</tr>
<tr>
<td>CHEM 75 Instrumental Analysis</td>
</tr>
<tr>
<td>CHMT 1 Introduction to Chemical Laboratory Technology</td>
</tr>
<tr>
<td>CHMT 8 Work Experience in Chemical Technology</td>
</tr>
<tr>
<td>CHMT 9 Work Experience in Chemical Technology</td>
</tr>
<tr>
<td>PLUS: Select six (6) units from:</td>
</tr>
<tr>
<td>CHMT 5 Elementary Principles of Chemical Processing</td>
</tr>
<tr>
<td>MICR 22 Microbiology</td>
</tr>
<tr>
<td>PHIL 12 Ethics, or</td>
</tr>
<tr>
<td>PHIL 12H Ethics – Honors</td>
</tr>
<tr>
<td>SPCH 26H Interpersonal Communication – Honors</td>
</tr>
</tbody>
</table>

#### Total Units 40.0

### Child Development

**Child Development Department Major 21315**

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 nine certificates are offered. Students desiring a Bachelor's Degree (transfer program) should consult with a counselor or advisor to discuss transferability of courses.

#### Requirements for the Major

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

#### Total Units 28.0

These courses are acceptable for the Child Development requirements leading to the Child Development Permit.

#### Recommended Electives:

<table>
<thead>
<tr>
<th>Course</th>
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</thead>
<tbody>
<tr>
<td>CHLD 50 Multicultural Education: Anti-Bias Perspective</td>
</tr>
<tr>
<td>CHLD 51 Early Literacy in Child Development</td>
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<tr>
<td>CHLD 61 Language Arts &amp; Art Media for Young Children</td>
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<tr>
<td>CHLD 62 Music and Motor Development for Young Children</td>
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<tr>
<td>CHLD 63 Creative Science and Math for Young Children</td>
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<tr>
<td>CHLD 71A Administration of Child Development Programs</td>
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<tr>
<td>CHLD 71B Management/Marketing/Personnel for ECD Programs</td>
</tr>
<tr>
<td>CHLD 72 Teacher, Parent, and Child Relationships</td>
</tr>
<tr>
<td>CHLD 73 Infant/Toddler Care and Development</td>
</tr>
</tbody>
</table>
Programs Leading to an Associates Degree

Commercial Flight
Aeronautics and Transportation Department
Major 20912

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

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

Requirements for the Major

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 and Human Factors 3.0 CSU
- AERO 28 Aircraft and Engines 3.0 CSU
- AERO 29 Federal Aviation Regulations 2.0 CSU
- AERO 30 Instrument Ground School 3.0 CSU
- TRAN 17 Air Transportation 3.0 CSU

Total Units 27.0

Recommended Electives:
- AERO 40 Flight
- AERO 40L Flight Laboratory
- AERO 58 Flight Instructor Ground School
- AIRT 41 Aircraft Recognition and Performance
- CISB 11 Computer Information Systems

The Commercial Flight faculty recommend that students complement their studies with selected elective courses chosen from the list above. Students should meet with a professor of commercial flight to help them determine which electives would best suit their career plans.

Computer and Networking Technology
Electronics and Computer Technology Department
Major 20725

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/server servicing, security systems 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 certifications 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, or
- CISB 15 Microcomputer Applications 4.0 CSU, UC
- ELEC 50A Electronic Theory 2.0 CSU
- ELEC 50AL Electronics Laboratory 1.0 CSU
- ELEC 50B Electronic Theory 2.0 CSU
- ELEC 50BL Electronics Laboratory 1.0 CSU
- ELEC 56 Digital Electronics 3.0 CSU
- ELEC 56L Digital Electronics Laboratory 1.0 CSU
- TECH 60 Customer Relations for the Technician 1.0

Total Units 42.0 - 43.0

Recommended Electives:
- ELEC 51 Electronic Devices Theory
- ELEC 51L Electronic Devices Laboratory
- ELEC 74 Microprocessor Systems
- ELEC 74L Microprocessor Systems Laboratory

Computer Graphics
Design/Photography
Photographics Department
Major 21005

This program is designed to prepare students for employment in the field of computer graphics/photography. A variety of career opportunities are available in art, cinema, communications, industrial arts, graphics, and journalism. Students desiring a Bachelor's degree should consult with a counselor or advisor to help them determine which transferability of courses.

Requirements for the Major

Required courses:
- GRAP 1 Understanding the Visual Arts 3.0
- GRAP 2 Computer Graphics Lab 1.0
- GRAP 12 Advanced Photo Editing with Photoshop 3.0
- PHOT 1 Laboratory Studies: Black and White Photography 3.0
- PHOT 2 Laboratory Studies: Color Photography 3.0
- PHOT 15 History of Photography 3.0
- PHOT 17 Photocommunication 3.0

Total Units 27.0

Recommended Electives:
- ARTB 1 Understanding the Visual Arts
- GHIS 1 Understanding the Visual Arts
- COMP 10 Operating the Macintosh Computer
- GRAP 14 Digital Image Design with Illustrator & Freehand
- GRAP 18 Advanced Image Design – 3D Modeling Techniques
- GRAP 28 Digital Portfolio 2.0
- PHOT 10 Beginning Photography 3.0 CSU, UC
- PHOT 17 Photocommunication 3.0

Total Units 27.0

Computer Network Administration and Security Management
Computer Information Systems Department
Major 20701

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 positions as network administrator and security management administrator.

The curriculum is intended to help students develop skills to design, administer and manage the heterogeneous corporate network with security emphasis. The courses examine and illustrate network security with various industry-leading network operating systems. Individual courses will assist students in preparing for related industry certification exams.

The main objective of the degree is to prepare students for employment following graduation. Students wishing a Bachelor's Degree should meet with a counselor or advisor for choices to transfer to available CSU joint degree programs.

Requirements for the Major

Required courses:
- CISN 11 Telecommunications/Networking Fundamentals 4.0 CSU
- CISN 24 Microsoft NT Network System Administration 4.0 CSU
- CISN 51 Cisco CCNA Networking Fundamentals and Routing 4.0 CSU
- CISS 21 Network Vulnerabilities and Countermeasures 4.0 CSU
- CISS 23 Network Analysis and NIDS 4.0 CSU
- CISS 25 Network Security and Firewalls 4.0 CSU
- SL 2 Linked Service Learning 1.0 CSU

PLUS

Select one (1) course from:
- CISB 11 Computer Information Systems 3.5 CSU, UC
- CISN 21 Windows Operating System 4.0 CSU
- CISN 31 Linux Operating System 4.0 CSU
- CISN 34 LINUX Networking and Security 4.0 CSU
- CISN 41 Novell Netware Systems Administration 4.0 CSU

Total Units 28.5 - 29.0
<table>
<thead>
<tr>
<th>Program Type</th>
<th>Program Details</th>
<th>Requirements</th>
<th>Coursework</th>
</tr>
</thead>
</table>
| **Computer Programmer – C++** | The Computer Information Systems major is a two-year program leading to the Associate in Science (A.S.) Degree. It prepares individuals for employment in the computer field in such positions as application development, systems analysis, and telecommunications. The courses in Computer Information Systems emphasize the development of applications in a business environment. They introduce the latest technologies including development of graphical user interfaces using object-oriented methodologies and client/server applications. The program is designed to prepare students for employment following graduation. Students wishing a Bachelor's Degree (transfer program) should meet with a counselor or advisor to discuss transferability of courses. Additional recommended courses for transfer are BUSA 8 and BUSL 18. Coursework includes a list of core courses and additional courses for each option. The object oriented C++ language is available on many platforms. It is used extensively in the development of applications on microcomputers and is known for its power and flexibility. | **Required core courses:**   | **Required core courses:** BUSA 7 Principles of Accounting – Financial 5.0 CSU, UC CISP 11 Computer Information Systems 3.5 CSU, UC CISP 15 Microcomputer Applications 4.0 CSU, UC CISM 11 Systems Analysis and Design 3.5 CSU, UC CISM 14 Computer Information Systems Seminar 4.0 CISP 21 Programming in Java 4.0 CSU, UC Total Units: 40.0  
**Plus the following courses:** CISP 11 Database Management – Microcomputers 4.0 CSU CISP 21 Windows Operating System 4.0 CSU CISP 31 Programming in C++ 4.0 CSU, UC CISP 34 Advanced C++ Programming 4.0 CSU, UC |
| **Computer Programmer – Database Management Systems** | The Computer Information Systems major is a two-year program leading to the Associate in Science (A.S.) Degree. It prepares individuals for employment in the computer field in such positions as application development, systems analysis, and telecommunications. The courses in Computer Information Systems emphasize the development of applications in a business environment. They introduce the latest technologies including development of graphical user interfaces using object-oriented methodologies and client/server applications. The program is designed to prepare students for employment following graduation. Students wishing a Bachelor's Degree (transfer program) should meet with a counselor or advisor to discuss transferability of courses. Additional recommended courses for transfer are BUSA 8 and BUSL 18. Coursework includes a list of core courses and additional courses for each option. This option concentrates on the design, development, and maintenance of relational databases on microcomputers. Applications are developed using power-user and programming techniques. | **Required core courses:**   | **Required core courses:** BUSA 7 Principles of Accounting – Financial 5.0 CSU, UC CISP 11 Computer Information Systems 3.5 CSU, UC CISP 15 Microcomputer Applications 4.0 CSU, UC CISM 11 Systems Analysis and Design 3.5 CSU, UC CISM 14 Computer Information Systems Seminar 4.0 CISP 21 Programming in Java 4.0 CSU, UC Total Units: 46.0  
**Plus the following courses:** CISP 11 Database Management – Microcomputers 4.0 CSU CISP 14 Advanced Database Management – Microcomputers, or SQL Server 4.0 CISP 31 Database Management 4.0 CISP 32 Oracle Forms and Reports 4.0 CISP 40 Database Design 2.0 CISP 50 Web Based Applications with PL/SQL 4.0 CSU Total Units: 46.0 |
| **Computer Programmer – Telecommunications** | The Computer Information Systems major is a two-year program leading to the Associate in Science (A.S.) Degree. It prepares individuals for employment in the computer field in such positions as application development, systems analysis, and telecommunications. The courses in Computer Information Systems emphasize the development of applications in a business environment. They introduce the latest technologies, including development of graphical user interfaces using object-oriented methodologies and client/server applications. The program is designed to prepare students for employment following graduation. Students wishing a Bachelor's Degree (transfer program) should meet with a counselor or advisor to discuss transferability of courses. Course work includes a list of core courses and additional courses for each option. The network option focuses on the communication of data between systems. Topics include network infrastructure, protocols, and the Internet. | **Required core courses:**   | **Required core courses:** BUSA 7 Principles of Accounting – Financial 5.0 CSU, UC CISP 11 Computer Information Systems 3.5 CSU, UC CISP 15 Microcomputer Applications 4.0 CSU, UC CISM 11 Systems Analysis and Design 3.5 CSU, UC CISM 14 Computer Information Systems Seminar 4.0 CISP 21 Programming in Java 4.0 CSU, UC Total Units: 46.0  
**Plus the following courses:** CISP 11 Telecommunications/Networking Fundamentals 4.0 CSU CISP 14 Advanced Telecommunications 4.0 CISP 41 Novell Netware Systems Administration, or Microsoft NT Network System Administration 4.0 CISP 24 Microsoft NT Network System Administration 4.0 CSU CISP 11 Introduction to Internet Technologies 4.0 CSU Total Units: 46.0 |
| **Computer Programmer – Visual Basic** | The Computer Information Systems major is a two-year program leading to the Associate in Science (A.S.) Degree. It prepares individuals for employment in the computer field in such positions as application development, systems analysis, and telecommunications. The courses in Computer Information Systems emphasize the development of applications in a business environment. They introduce the latest technologies including development of graphical user interfaces using object-oriented methodologies and client/server applications. The program is designed to prepare students for employment following graduation. Students wishing a Bachelor's Degree (transfer program) should meet with a counselor or advisor to discuss transferability of courses. Additional recommended courses for transfer are BUSA 8 and BUSL 18. Coursework includes a list of core courses and additional courses for each option. This object-based language is used to develop graphical user interfaces and to customize Windows. | **Required core courses:**   | **Required core courses:** BUSA 7 Principles of Accounting – Financial 5.0 CSU, UC CISP 11 Computer Information Systems 3.5 CSU, UC CISP 15 Microcomputer Applications 4.0 CSU, UC CISM 11 Systems Analysis and Design 3.5 CSU, UC CISM 14 Computer Information Systems Seminar 4.0 CISP 21 Programming in Java 4.0 CSU, UC Total Units: 46.0  
**Plus the following courses:** CISP 11 Visual Basic 4.0 CSU, UC CISP 14 Advanced Visual Basic 4.0 CSU, UC CISP 24 Microsoft NT Network System Administration 4.0 CSU CISP 11 Introduction to Internet Technologies 4.0 CSU Total Units: 46.0 |
Programs Leading to an Associates Degree

### Construction Inspection
**Architecture and Engineering Design Department Major 20920**

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

#### Requirements for the Major
**Required courses:**
- ARCH 12 Architectural Materials and Specifications 3.0 CSU
- ARCH 14 Building and Zoning Codes 3.0
- INS 17 Legal Aspects of Construction 3.0 CSU
- INS 70 Elements of Construction 3.0 CSU
- INS 71 Construction Estimating 3.0 CSU
- INS 87 Fundamentals of Construction Inspection 3.0

**Total Units** 18.0

**Recommended Electives:**
- ARCH 11 Architectural Drawing
- ARCH 15 Architectural Working Drawings – I
- INS 67 Reading Construction Drawings

### Correctional Sciences
**Public Services Department Major 22103**

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 a career in corrections or similar positions.

#### Requirements for the Major
**Required courses:**
- ADJU 68 Administration of Justice 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

**Total Units** 18.0

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

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

**Desktop Publishing**
**Office Technology Department Major 20711**

This program is intended to prepare students for employment following graduation. Training in a variety of computer skills is emphasized. This program will afford students career opportunities in businesses desiring desktop publishing skills or in starting your own business. 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:**
- BUSO 26 Oral Communications for Business 3.0
- BUSO 50 Desktop Publishing 4.0 CSU
- BUSO 51 Computer Keyboarding, or 2.0 CSU
- BUSO 52 Business English 3.0
- BUSO 53 Using Web Page Software 4.0 CSU
- BUSO 54 Computer Simulation and Manipulation 2.0 CSU
- BUSO 55 Electronic Controls 3.0
- BUSO 56 Desktop Publishing with InDesign or Pagemaker, or 4.0 CSU

**Total Units** 23.0

**Recommended Electives:**
- BUSO 57 Microsoft Word 3.0
- BUSO 58 Microsoft Excel 3.0
- BUSO 59 Microsoft PowerPoint 3.0
- BUSO 60 Microsoft Access 3.0
- BUSO 61 Microsoft Publisher 3.0
- BUSO 62 Adobe Illustrator for Desktop Publishing 4.0 CSU
- BUSO 63 Adobe Photoshop for Desktop Publishing 4.0 CSU
- BUSO 64 Adobe InDesign for Desktop Publishing 4.0 CSU
- BUSO 65 InDesign CSU 3.0
- BUSO 66 QuarkXpress 3.0
- BUSO 67 Adobe Dreamweaver for Desktop Publishing 4.0 CSU

### Educational Paraprofessional
**Psychology and Education Department Major 22117**

This degree program in the field of education prepares paraprofessionals in a variety of areas, emphasizing working with children to enhance their learning development. Graduates will be able to assist classroom teachers in working with K-12 students, including students with special needs. This associate degree certifies that paraprofessionals are “highly qualified” according to current federal legislation.

#### Requirements for the Major
**Required courses:**
- CHLD 1 Child, Family and Community 3.0 CSU, UC
- CHLD 10 Child Growth and Development, or 3.0 CSU, UC
- PSYC 14 Developmental Psychology 3.0 CSU, UC
- CHLD 68 Children with Special Needs 3.0 CSU
- EDUC 10 Introduction to Education 3.0 CSU, UC
- EDUC 16 Aspects and Issues in Teaching Service Learning 3.0 CSU, UC
- ENGL 1A Freshman Composition 3.0 CSU, UC
- MATH 71 Intermediate Algebra 5.0

**Total Units** 19.5 - 25.0

**Recommended Electives:**
- BUSO 57 Microsoft Word 3.0
- BUSO 58 Microsoft Excel 3.0
- BUSO 59 Microsoft PowerPoint 3.0
- BUSO 60 Microsoft Access 3.0
- BUSO 61 Microsoft Publisher 3.0
- BUSO 62 Adobe Illustrator for Desktop Publishing 4.0 CSU

### Electronics and Computer Engineering Technology
**Electronics and Computer Engineering Technology Department Major 20906**

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

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

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

#### Requirements for the Major
**Required courses:**
- ELEC 11 Technical Applications in Microcomputers 3.0 CSU
- ELEC 12 Computer Simulation and Troubleshooting 2.0
- ELEC 50A Electronics Theory 2.0 CSU
- ELEC 50AL Electronics Laboratory 1.0 CSU
- ELEC 50B Electronics Theory 2.0 CSU
- ELEC 50BL Electronics Laboratory 1.0 CSU
- ELEC 51 Electronic Devices Theory 3.0 CSU
- ELEC 51L Electronic Devices Laboratory 1.0 CSU
- ELEC 53 Communications Circuits Theory 3.0
ELEC 53L Communications Circuits 1.0
ELEC 54A Industrial Circuits Theory 3.0 CSU
ELEC 54AL Industrial Circuits Laboratory 1.0 CSU
ELEC 54B Industrial Electronic Systems 2.0 CSU
ELEC 54BL Industrial Electronic Systems Laboratory 1.0 CSU
ELEC 55 Microwave Communications 3.0
ELEC 55L Microwave Communications Laboratory 1.0
ELEC 56 Digital Electronics 3.0 CSU
ELEC 56L Digital Electronics Laboratory 1.0 CSU
ELEC 61 Electronic Assembly and Fabrication 2.0 CSU
ELEC 74 Microprocessor Systems 3.0 CSU
ELEC 74L Microprocessor Systems Laboratory 1.0 CSU
ELMA 65A Mathematics of Electronics 2.0 CSU
ELMA 65B Mathematics of Electronics 2.0 CSU
TECH 60 Customer Relations for the Technician 1.0

Total Units 45.0

Programs Leading to an Associates Degree

Emergency Medical Services

Medical Services Department
Major 21210

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 CAAHEP (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:

1. EMS 1 Fundamentals for Paramedics 4.0
2. EMS 10 Anatomy and Physiology for Paramedics 2.0
3. EMS 20 Emergency Cardiac Care for Paramedics 1.0
4. EMS 30 Pharmacology for Paramedics 2.0
5. EMS 40 Cardiology for Paramedics 5.0
6. EMS 50 Paramedic Skills Competency 4.5
7. EMS 60 EMS Theory for Paramedics 8.5
8. EMS 70 Paramedic Clinical Internship 3.5
9. EMS 80 Paramedic Field Internship 8.5

Total Units 39.0

Recommended Electives:

ADJU 1 The Administration of Justice System 3.0
FIRE 1 Fire Protection Organization 3.0
PSYC 1A Introduction to Psychology 3.0
Soc 1 Sociology 3.0

The Emergency Medical Services faculty recommend that students complement their studies with selected elective courses chosen from the list above. Students should meet with a professor of Emergency Medical Services to help them determine which electives would be of the most interest to them in 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 of Completion for the Paramedic Program. Students are then eligible for licensure by taking and passing both the National Registry Exam and the California Paramedic 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.

Note: If the course(s) were taken and/or the degree obtained at Mt. San Antonio College, it is not necessary to request transcripts.

Indicate in the mailing address the program for which transcripts are being sent to the Technology and Health Division Office.

Example:

Mt. San Antonio College Technology and Health Division Paramedic Program 1100 North Grand Avenue Walnut, CA 91789-1399

8. A physical examination, proof of certain immunizations, and a criminal background check are required of all candidates after acceptance to the program. Forms and information will be provided upon acceptance into the program. In addition, drug testing may be required as part of the physical examination and/or requested by the college or one of its agents.

Entrance Procedure:

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

1. Completion of all admission requirements
2. EMS-related experience
3. Scores on the English assessment and math placement tests
4. Placement EMS-1, Fundamentals for Paramedics, and scores on college placement exam for English and math

Engineering Design Technology

Architecture and Engineering Design Department
Major 20913

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 – Geometric Dimensioning and Tolerancing 3.0 CSU
EDT 16 Basic CAD and Computer Applications 4.0 CSU
EDT 18 Engineering CAD Applications 4.0 CSU
EDT 20 Technical Descriptive Geometry 3.0 CSU
EDT 24 Engineering CAD 3-D Solids and Surfaces 3.0 CSU
EDT 26 Civil Engineering Technology and CAD 3.0 CSU
EDT 28 Engineering CAD 3-D Illustration/Animation 3.0 CSU
ELMA 65A Mathematics of Electronics 2.0 CSU
ELMA 65B Mathematics of Electronics 2.0 CSU
ELEC 50A Electronics Theory 2.0 CSU
ELEC 50AL Electronics Laboratory 1.0 CSU
ELEC 50B Electronics Theory 2.0 CSU
ELEC 50BL Electronics Laboratory 1.0 CSU
MFG 11 Manufacturing Processes I 2.0 CSU

Total Units 37.0
Programs Leading to an Associates Degree

Recommended Electives:
EDT 89 Engineering Design Technology
Work Experience
ENGR B Properties of Materials

Equipment Technology
Agricultural Sciences Department
Major 20118

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

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

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

Requirements for the Major

Recommended courses:
AGOR 57 Power Train Repair 3.0 CSU, UC
AGOR 71 Landscape Construction 3.0 CSU, UC
AGOR 72 Landscape Hardscape Applications 3.0 CSU, UC
CISB 15 Microcomputer Applications 4.0 CSU, UC
Total Units 35.0 - 38.0

Escrow Management
Business Administration Department
Major 20511

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

Recommended courses:
BUSA 7 Principles of Accounting – Financial, 5.0 CSU, UC
BUSA 72 Bookkeeping – Accounting 5.0
BUSB 20 Principles of Business 3.0 CSU, UC
BUSB 60 Human Relations in Business 3.0 CSU
BUSB 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
CISB 15 Microcomputer Applications 4.0 CSU, UC
COMP 1 Computer Keyboarding 4.0 CSU
Total Units 40.0

Recommended Electives:
BUSA 8 Principles of Accounting – Managerial
BUSB 18 Business Law, 1.0
BUSB 18H Business Law – Honors
BUSB 62 Human Resource Management
BUSO 5 Business English
BUSR 52 Real Estate Practice, 3.0
BUSR 52D Real Estate Practice Work Experience
BUSR 57 Income Tax Aspects of Real Estate Investments
PSYC 1A Introduction to Psychology, 3.0
PSYC 1AH Introduction to Psychology – Honors

Family And Consumer Sciences
Consumer Science and Design Technologies
Major 21309

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

Recommended 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
FCS 41 Life Management 3.0 CSU
FCS 80 Financial Planning, 3.0 CSU
BUSA 71 Financial Planning 3.0 CSU
ID 100 Fundamentals of Interior Design 3.0 CSU
NF 20 Principles of Foods with Lab, 3.0 CSU
NF 62 Meal Management 3.0 CSU
NF 25 Essentials of Nutrition, 3.0 CSU
NF 25H Essentials of Nutrition – Honors 3.0 CSU, UC
NF 28 Cultural and Ethnic Foods 3.0 CSU, UC
Total Units 30.0

Recommended Electives:
FASH 8 History of Costume and Fashion 3.0 CSU
FASH 9 Fashion Design and Costume 3.0 CSU
FASH 10 Clothing Fundamentals 3.0 CSU
FASH 12 Advanced Clothing 3.0 CSU
FASH 15 Fashion Strategies 3.0 CSU
FASH 17 Textiles 3.0 CSU, UC
FASH 20 Illustration for Fashion and Costume Design 3.0
FASH 21 Basic Patternmaking 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:
BUSA 26 Fashion Computer Assisted Design
BUSA 81 Work Experience in Fashion
BUSA 82 Work Experience in Fashion
BUSA 83 Work Experience in Fashion
BUSA 90 Field Studies
BUSA 91 Field Studies – New York
BUSA 92 Field Studies – Fashion Capitals
FCS 41 Life Management
FASH 20, FASH 23, FASH 90, FASH 91, and FASH 95 may be taken two times for credit.

Fashion Merchandising
Consumer Science and Design Technologies
Major 21308

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

Recommended courses:
FASH 8 Introduction to Fashion 3.0 CSU
FASH 9 History of Costume and Fashion 3.0 CSU
FASH 10 Clothing Fundamentals 3.0 CSU
FASH 12 Advanced Clothing 3.0 CSU
FASH 15 Fashion Strategies 3.0 CSU
FASH 17 Textiles 3.0 CSU, UC
FASH 20 Illustration for Fashion and Costume Design 3.0
FASH 21 Basic Patternmaking 3.0 CSU
FASH 22 Fashion Design By Draping 3.0
FASH 23 Patternmaking II 3.0
FASH 30 Fashion Design and Product Development I 3.0
FASH 31 Fashion Design and Product Development II 3.0
FASH 32 Fashion Design and Product Development III 3.0
Total Units 39.0

Recommended Electives:
FASH 26 Fashion Computer Assisted Design
FASH 81 Work Experience in Fashion
FASH 82 Work Experience in Fashion
FASH 83 Work Experience in Fashion
FASH 90 Field Studies
FASH 91 Field Studies – New York
FASH 92 Field Studies – Fashion Capitals
FCS 41 Life Management
FASH 20, FASH 23, FASH 90, FASH 91, and FASH 95 may be taken two times for credit.
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, or  3.0  CSU  
BUSS 50  Retail Store Management and Merchandising  3.0  CSU  
FASH 63  Advertising and Promotion, or  3.0  CSU  
BUSS 33  Advertising and Promotion  3.0  CSU  
FASH 66  Visual Merchandising Display  3.0  CSU  
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.

**Recommended Electives:**
- BUSS 36 Principles of Marketing  
- FASH 25 Fashion Computer-Assisted Drawing  
- FASH 90 Field Studies  
- FASH 91 Field Studies – New York  
- FASH 92 Field Studies – Fashion Capitals  
- FCS 41 Life Management  
- FCS 91 Work Experience in Family and Consumer Sciences  
- FCS 92 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 22105**
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 Prevention Technology  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

**Recommended Electives:**
- BUSA 7 Principles of Accounting –  5.0  CSU, UC Financial  
- CISB 11 Computer Information Systems  3.5  CSU, UC  
- FIRE 1 Fire Protection Organization  3.0  CSU  
- FIRE 2 Fire Prevention Technology  3.0  CSU  
- FIRE 3 Fire Prevention Technology  3.0  CSU  
- FIRE 4 Building Construction for Fire Protection  3.0  CSU  
- FIRE 5 Fire Behavior and Combustion  3.0  CSU  
- FIRE 6 Hazardous Materials/ICS  3.0

**Fire Technology – Administrative Communications**

**Fire Technology Department Major 22107**
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  
- CISB 11 Computer Information Systems  3.5  CSU, UC  
- FIRE 1 Fire Protection Organization  3.0  CSU  
- FIRE 2 Fire Prevention Technology  3.0  CSU  
- FIRE 4 Building Construction for Fire Protection  3.0  CSU  
- FIRE 5 Fire Behavior and Combustion  3.0  CSU  
- FIRE 6 Hazardous Materials/ICS  3.0

**Fire Technology – Fire Management**

**Fire Technology Department Major 22109**
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 Prevention Technology  3.0  CSU  
- FIRE 4 Building Construction for Fire Protection  3.0  CSU  
- FIRE 5 Fire Behavior and Combustion  3.0  CSU  
- FIRE 6 Hazardous Materials/ICS  3.0
### Fire Technology – Fire Prevention

**Fire Technology Department Major 22110**

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
- FIRE 10 Arson and Fire Investigation 3.0 CSU
- FIRE 40 Fire Prevention 1A 2.0

**Total Units:** 33.0

**Recommended Electives:**

- EMT 90 Emergency Medical Technician I
- FIRE 8 Fire Company Organization and Management
- FIRE 40 Fire Prevention 1A
- FIRE 41 Fire Prevention 1B
- FIRE 42 Fire Prevention 1C
- FIRE 43 Fire Prevention 2a
- FIRE 44 Fire Prevention 2b
- FIRE 45 Fire Prevention 2c
- FIRE 48 Title 19/24 Workshop 1.0

**Total Units:** 34.0

### Fire Technology – Private Fire Service

**Fire Technology Department Major 22112**

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
- FIRE 11 Fire Apparatus and Equipment 3.0 CSU
- FIRE 12 Fire Prevention 1A 2.0
- FIRE 40 Fire Prevention 1A
- FIRE 41 Fire Prevention 1B
- FIRE 42 Fire Prevention 1C

**Total Units:** 30.0

**Recommended Electives:**

- EMT 90 Emergency Medical Technician I
- FIRE 10 Arson and Fire Investigation
- FIRE 30 Fire Management 1
- FIRE 60 Fire Investigation 1A
- FIRE 61 Fire Investigation 1B

**Total Units:** 35.0
AGOR 29 Ornamental Plants – Herbs 3.0 CSU, UC
AGOR 30 Ornamental Plants – Trees and Woody Shrubs 3.0 CSU, UC
AGOR 32 Landscaping and Nursery Management 3.0 CSU
AGOR 91 Work Experience in Nursery Operations, 1.0
AGOR 92 Work Experience in Nursery Operations, 2.0
AGOR 93 Work Experience in Nursery Operations, 3.0
AGOR 94 Work Experience in Nursery Operations, 4.0
CISB 15 Microcomputer Applications 4.0 CSU, UC
BUSM Business: Management 1.0 - 4.0 CSU, UC
BUSU Business: Sales, Merchandising and Marketing 1.0 - 4.0 CSU
CISB Computer Information Systems: Beginning 2.0 - 4.0 CSU, UC
COMP Computer Applications 0.5 - 4.0 CSU
Total Units 42.0

Histologic Technician Training
Biological Sciences Department Major 21211
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:
BUSA 7 Principles of Accounting – Financial, 5.0 CSU, UC
BUSA 72 Bookkeeping – Accounting 5.0
BUSL 18 Business Law, 3.0 CSU, UC
BUSL 18H Business Law – Honors 3.0 CSU, UC
BUSM 10 Principles of Continuous Quality Improvement 3.0
BUSM 20 Principles of Business 3.0 CSU, UC
BUSM 60 Human Relations in Business 3.0 CSU
BUSM 61 Business Organization and Management 3.0 CSU
BUSM 62 Human Resource Management 3.0
BUSO 5 Business English 3.0
BUSO 25 Business Communications 3.0 CSU
BUSA 36 Principles of Marketing 3.0 CSU
CISB 15 Microcomputer Applications 4.0 CSU, UC
PLUS Select six (6) units from:
BUSA Business: Accounting 1.0 - 5.0 CSU, UC
BUSC Business: Economics 3.0 CSU, UC
BUSL Business: Law 1.0 - 3.0 CSU, UC

Horse Ranch Management
Agricultural Sciences Department Major 20102
The program of courses in Agriculture is designed to enable students to prepare for a career in this essential and diverse profession. The Department offers a comprehensive Agricultural Sciences Program and is unique in that most courses provide hands-on experience designed to give the student a combination of practical skills and technical knowledge. Students who intend to transfer should check the lower division requirements in the catalog of the college or university which they will attend and also the semester and year in which courses are offered.
The following programs list all courses needed to satisfy major requirements. Students may obtain certificates upon completion of required courses listed. It is recommended that all students consult with the department chairperson, counselor or advisor to file an educational plan.
These programs are intended to prepare students for employment following graduation. Students desiring a Bachelor’s Degree (transfer program) should consult with the department chairperson or faculty advisor to discuss transfer options. It is recommended that all students consult with the department chairperson, counselor or advisor to discuss transferability of courses. The curriculum is flexible in nature to allow for previous experience and specialization in a given area of agriculture and agricultural business.

Requirements for the Major
Required courses:
ANAT 108 Introductory Human Physiology 4.0 CSU, UC
ANAT 36 Human Physiology 5.0 CSU, UC
ANAT 35 Human Anatomy 5.0 CSU, UC
CHEM 10 Chemistry for Allied Health Majors, 4.0 CSU, UC
CHEM 50 General Chemistry I 5.0 CSU, UC
HT 1 Introduction to Histotechnology 1.0
HT 2 Scientific Basics for Histologic Technicians 3.0
HT 10 Histology 3.0
HT 12 Beginning Histotechniques 4.0
HT 14 Advanced Histotechniques 4.0
HT 16 Histochemistry/Immunohistochemistry 4.0
MICR 22 Microbiology, 4.0 CSU, UC
MICR 1 Principles of Microbiology 5.0 CSU, UC
PLUS Select four (4) units from:
HT 17 Work Experience in Histotechnology 1.0
HT 18 Work Experience in Histotechnology 2.0
HT 19 Work Experience in Histotechnology 3.0
HT 20 Work Experience in Histotechnology 4.0
Total Units 40.0 - 43.0

Histology
Biological Sciences Department Major 21211
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 108 Introductory Human Physiology 4.0 CSU, UC
ANAT 36 Human Physiology 5.0 CSU, UC
ANAT 35 Human Anatomy 5.0 CSU, UC
CHEM 10 Chemistry for Allied Health Majors, 4.0 CSU, UC
CHEM 50 General Chemistry I 5.0 CSU, UC
HT 1 Introduction to Histotechnology 1.0
HT 2 Scientific Basics for Histologic Technicians 3.0
HT 10 Histology 3.0
HT 12 Beginning Histotechniques 4.0
HT 14 Advanced Histotechniques 4.0
HT 16 Histochemistry/Immunohistochemistry 4.0
MICR 22 Microbiology, 4.0 CSU, UC
MICR 1 Principles of Microbiology 5.0 CSU, UC
PLUS Select four (4) units from:
HT 17 Work Experience in Histotechnology 1.0
HT 18 Work Experience in Histotechnology 2.0
HT 19 Work Experience in Histotechnology 3.0
HT 20 Work Experience in Histotechnology 4.0
Total Units 40.0 - 43.0

Horse Ranch Management
Agricultural Sciences Department Major 20102
The program of courses in Agriculture is designed to enable students to prepare for a career in this essential and diverse profession. The Department offers a comprehensive Agricultural Sciences Program and is unique in that most courses provide hands-on experience designed to give the student a combination of practical skills and technical knowledge. Students who intend to transfer should check the lower division requirements in the catalog of the college or university which they will attend and also the semester and year in which courses are offered.

Programs Leading to an Associates Degree

BUSA 7 Principles of Accounting – Financial, 5.0 CSU, UC
BUSA 72 Bookkeeping – Accounting 5.0
BUSL 18 Business Law, 3.0 CSU, UC
BUSL 18H Business Law – Honors 3.0 CSU, UC
BUSM 10 Principles of Continuous Quality Improvement 3.0
BUSM 20 Principles of Business 3.0 CSU, UC
BUSM 60 Human Relations in Business 3.0 CSU
BUSM 61 Business Organization and Management 3.0 CSU
BUSM 62 Human Resource Management 3.0
BUSO 5 Business English 3.0
BUSO 25 Business Communications 3.0 CSU
BUSA 36 Principles of Marketing 3.0 CSU
CISB 15 Microcomputer Applications 4.0 CSU, UC
PLUS Select six (6) units from:
BUSA Business: Accounting 1.0 - 5.0 CSU, UC
BUSC Business: Economics 3.0 CSU, UC
BUSL Business: Law 1.0 - 3.0 CSU, UC

Hospitality and Restaurant Management
Consumer Science and Design Technologies Major 21307
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.
Note: HRM 65 is a required course in the Cal Poly program.
Programs Leading to an Associates Degree

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>HRM 51</td>
<td>Introduction to Hospitality</td>
<td>3.0 CSU</td>
</tr>
<tr>
<td>HRM 52</td>
<td>Food Safety and Sanitation</td>
<td>1.5 CSU</td>
</tr>
<tr>
<td>HRM 53</td>
<td>Dining Room Service</td>
<td>3.0 CSU</td>
</tr>
<tr>
<td>HRM 54</td>
<td>Commercial Food Preparation</td>
<td>3.0 CSU</td>
</tr>
<tr>
<td>HRM 56</td>
<td>Management of Hospitality Personnel and Operations</td>
<td>3.0 CSU</td>
</tr>
<tr>
<td>HRM 57</td>
<td>Restaurant Cost Control</td>
<td>3.0 CSU</td>
</tr>
<tr>
<td>HRM 64</td>
<td>Hospitality Financial Accounting I</td>
<td>3.0 CSU</td>
</tr>
<tr>
<td>HRM 66</td>
<td>Hospitality Law</td>
<td>3.0 CSU</td>
</tr>
<tr>
<td>HRM 70</td>
<td>Introduction to Lodging</td>
<td>3.0 CSU</td>
</tr>
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</table>

PLUS

Select three (3) units from:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>HRM 61</td>
<td>Menu Planning</td>
<td>3.0 CSU</td>
</tr>
<tr>
<td>HRM 62</td>
<td>Catering</td>
<td>3.0 CSU</td>
</tr>
<tr>
<td>HRM 93</td>
<td>Work Experience in Restaurant/Hospitality</td>
<td>3.0 CSU</td>
</tr>
<tr>
<td>NF 20</td>
<td>Principles of Foods with Lab</td>
<td>3.0 CSU</td>
</tr>
</tbody>
</table>

Total Units 28.5

Recommended Electives:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>HRM 91</td>
<td>Work Experience in Restaurant/Hospitality</td>
<td>3.0 CSU</td>
</tr>
<tr>
<td>HRM 92</td>
<td>Work Experience in Restaurant/Hospitality</td>
<td>3.0 CSU</td>
</tr>
<tr>
<td>HRM 94</td>
<td>Work Experience in Restaurant/Hospitality</td>
<td>3.0 CSU</td>
</tr>
</tbody>
</table>

Human Resource Management

Accounting and Management Department Major 20530

The Human Resource Major and Certificate are 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:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANTH 22</td>
<td>General Cultural Anthropology</td>
<td>3.0 CSU, UC</td>
</tr>
<tr>
<td>BUSA 70</td>
<td>Payroll and Tax Accounting</td>
<td>3.0</td>
</tr>
<tr>
<td>BUSL 19</td>
<td>Advanced Business Law</td>
<td>3.0 CSU, UC</td>
</tr>
<tr>
<td>BUSM 20</td>
<td>Principles of Business</td>
<td>3.0 CSU, UC</td>
</tr>
<tr>
<td>BUSM 60</td>
<td>Human Relations in Business</td>
<td>3.0 CSU</td>
</tr>
<tr>
<td>BUSM 61</td>
<td>Business Organization and Management</td>
<td>3.0 CSU</td>
</tr>
<tr>
<td>BUSM 62</td>
<td>Human Resource Management</td>
<td>3.0</td>
</tr>
<tr>
<td>BUSO 25</td>
<td>Business Communications</td>
<td>3.0 CSU</td>
</tr>
<tr>
<td>CISB 15</td>
<td>Microcomputer Applications</td>
<td>4.0 CSU, UC</td>
</tr>
</tbody>
</table>

Total Units 28.0

Interior Design

Consumer Science and Design Technologies Major 21301

The program is available as a Certificate (Interior Merchandising), as an A.S. Degree Interior Design Assistant, and/or when combined with a Bachelor's Degree qualifies student for Professional Designation in Interior Design (Professional Interior Designer) (see below). Students desiring a Bachelor's Degree (transfer program) should consult with a counselor or advisor to discuss transferability of courses.

The Interior Design program works within a Regional Interior Design Program of nearby community colleges. Many of the required courses may also be offered at the following community colleges and will meet the requirements of the Mt.SAC program: Fullerton, Long Beach City, Orange Coast, and Saddleback. Regional course numbers all have an ID (Interior Design) prefix. Some Mt. San Antonio College courses are offered by other departments and are identified by Mt. San Antonio College prefixes and numbers. These courses have the regional course ID number in parenthesis following their course title.

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>ID 10</td>
<td>Interior Design Careers</td>
<td>2.0 CSU</td>
</tr>
<tr>
<td>ID 120</td>
<td>Applied Color and Design Theory</td>
<td>4.0 CSU</td>
</tr>
<tr>
<td>ID 125</td>
<td>Interior Materials and Products</td>
<td>4.0 CSU</td>
</tr>
<tr>
<td>ID 150</td>
<td>Space Planning</td>
<td>3.0 CSU</td>
</tr>
<tr>
<td>ID 165</td>
<td>History of Interior Architecture</td>
<td>3.0 CSU</td>
</tr>
<tr>
<td>ID 170</td>
<td>Architecture &amp; Furnishings I</td>
<td>3.0 CSU</td>
</tr>
<tr>
<td>ID 180</td>
<td>History of Interior Architecture &amp; Furnishings II</td>
<td>3.0 CSU</td>
</tr>
<tr>
<td>ID 190</td>
<td>Fundamentals of Lighting</td>
<td>3.0</td>
</tr>
<tr>
<td>ID 195</td>
<td>Interior Design Studio II</td>
<td>2.0 CSU</td>
</tr>
<tr>
<td>ID 200</td>
<td>Business and Professional Practice</td>
<td>3.0</td>
</tr>
<tr>
<td>ID 240A</td>
<td>Interior Design Internship</td>
<td>1.0</td>
</tr>
<tr>
<td>ID 240B</td>
<td>Interior Design Internship</td>
<td>1.0</td>
</tr>
</tbody>
</table>

Total Units 50.0

Recommended Electives:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARCH 23</td>
<td>Architectural Presentations</td>
<td>3.0</td>
</tr>
<tr>
<td>ARTD 15A</td>
<td>Drawing: Beginning</td>
<td>3.0</td>
</tr>
<tr>
<td>BUSA 72</td>
<td>Bookkeeping – Accounting</td>
<td>3.0</td>
</tr>
<tr>
<td>FCS 41</td>
<td>Life Management</td>
<td>3.0</td>
</tr>
</tbody>
</table>

International Design – Kitchen And Bath Design

Consumer Science and Design Technologies Major 21302

This program provides for immediate opportunity to seek employment in the area of kitchen and bath design. The program is available as an Associate in Science Degree or a Certificate. Both the major and certificate are endorsed by the National Kitchen and Bath Association. Students completing all courses for this program will earn four (4) NKBA credits toward eligibility for professional certification as a Certified Kitchen Designer or Certified Bath Designer. Please see a professor of Interior Design or contact the NKBA for professional certification eligibility requirements beyond this program.

Requirements for the Major

Required courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARCH 11</td>
<td>Architectural Drawing</td>
<td>3.0 CSU, UC</td>
</tr>
<tr>
<td>ARCH 13</td>
<td>Architectural Illustration</td>
<td>3.0 CSU, UC</td>
</tr>
<tr>
<td>ARCH 15</td>
<td>Architectural Working Drawings – I</td>
<td>3.0 CSU</td>
</tr>
<tr>
<td>ARCH 16</td>
<td>Basic CAD and Computer Application</td>
<td>4.0 CSU, UC</td>
</tr>
<tr>
<td>BUSS 35</td>
<td>Professional Selling</td>
<td>3.0 CSU</td>
</tr>
<tr>
<td>ID 100</td>
<td>Fundamentals of Interior Design</td>
<td>3.0 CSU</td>
</tr>
<tr>
<td>ID 105</td>
<td>Interior Design Studio I</td>
<td>2.0 CSU</td>
</tr>
<tr>
<td>ID 120</td>
<td>Interior Design Careers</td>
<td>2.0 CSU</td>
</tr>
<tr>
<td>ID 125</td>
<td>Applied Color and Design Theory</td>
<td>4.0 CSU</td>
</tr>
<tr>
<td>ID 150</td>
<td>Interior Materials and Products</td>
<td>4.0 CSU</td>
</tr>
<tr>
<td>ID 165</td>
<td>Space Planning</td>
<td>3.0 CSU</td>
</tr>
<tr>
<td>ID 180</td>
<td>History of Interior Architecture</td>
<td>3.0 CSU</td>
</tr>
<tr>
<td>ID 190</td>
<td>Architecture &amp; Furnishings I</td>
<td>3.0 CSU</td>
</tr>
<tr>
<td>ID 195</td>
<td>History of Interior Architecture &amp; Furnishings II</td>
<td>3.0 CSU</td>
</tr>
<tr>
<td>ID 210</td>
<td>Fundamentals of Lighting</td>
<td>3.0</td>
</tr>
<tr>
<td>ID 215</td>
<td>Interior Design Studio II</td>
<td>2.0 CSU</td>
</tr>
<tr>
<td>ID 230</td>
<td>Business and Professional Practice</td>
<td>3.0</td>
</tr>
<tr>
<td>ID 240A</td>
<td>Interior Design Internship</td>
<td>1.0</td>
</tr>
<tr>
<td>ID 240B</td>
<td>Interior Design Internship</td>
<td>1.0</td>
</tr>
</tbody>
</table>

Total Units 56.0

Recommended Electives:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARCH 13</td>
<td>Architectural Illustration</td>
<td>3.0</td>
</tr>
<tr>
<td>BUSA 72</td>
<td>Bookkeeping – Accounting</td>
<td>3.0</td>
</tr>
<tr>
<td>BUSM 60</td>
<td>Human Relations in Business</td>
<td>3.0</td>
</tr>
<tr>
<td>BUSM 66</td>
<td>Small Business Management</td>
<td>3.0</td>
</tr>
<tr>
<td>BUSS 35</td>
<td>Professional Selling</td>
<td>3.0</td>
</tr>
<tr>
<td>BUSS 50</td>
<td>Retail Store Management and Merchandising</td>
<td>3.0</td>
</tr>
</tbody>
</table>

International Business

Accounting and Management Department Major 20507

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

Requirements for the Major

Required courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUSL 20</td>
<td>International Business Law</td>
<td>3.0</td>
</tr>
<tr>
<td>BUSM 20</td>
<td>Principles of Business</td>
<td>3.0 CSU, UC</td>
</tr>
<tr>
<td>BUSM 50</td>
<td>World Culture: A Business Perspective, etc.</td>
<td>3.0</td>
</tr>
</tbody>
</table>

48 2007-08 Mt. San Antonio College Catalog
and
Writing Composition
Applicants planning to continue their education
5.0 CSU, UC

49

BUSS 36 Principles of Marketing 3.0 CSU

BUSS 66 Small Business Management 3.0

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

Total Units 27.0 - 28.0

Recommended Electives:

BUSS 81 Work Experience in Business
BUSS 82 Work Experience in Business
BUSS 83 Work Experience in Business
BUSS 84 Work Experience in Business
BUSS 85 Special Issues in Business
BUSS 88 Special Issues in Marketing

Legal

Nursing Department
Major 21201

The Mt. San Antonio College Nursing Program, approved and accredited by the California Board of Registered Nursing, is a two-year program designed to prepare men and women to give direct nursing care to clients in various practice settings. The program consists of course work in nursing, science, general education and clinical nursing practice at local hospitals and health agencies. Graduates of the program receive an Associate in Science Degree in Nursing and are eligible to take the NCLEX-RN examination leading to licensure as a Registered Nurse.

The Licensed Vocational Nurse is provided career mobility in the Nursing Program. The Licensed Vocational Nurse may choose between earning an Associate in Science Degree in Nursing or completing the LVN 30-Unit Option track which leads to a certificate, not a degree.

Prerequisite Courses:

1. Human Anatomy, including a laboratory component, a minimum of four semester units.
2. Human Physiology, including a laboratory component, a minimum of four semester units.
3. Microbiology, including a laboratory component, a minimum of four semester units.
4. English 1A (Writing Composition) minimum of three (3) semester units with a minimum grade of C.

Non-course requirements:

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

Requirements for the Major:

Required courses:

NURS 4 Maternity Nursing 3.0 CSU
NURS 5 Psychiatric Nursing 3.0 CSU
NURS 6 Pediatric Nursing 3.0 CSU
NURS 7 Medical-Surgical Nursing: Nutrition/Elimination/ Surgical Asepsis 7.0 CSU
NURS 8 Medical-Surgical Nursing: Circulation and Oxygenation 5.0 CSU
NURS 9 Leadership in Nursing 1.0 CSU
NURS 10 Medical-Surgical Nursing: Integration/Regulation 4.0 CSU
NURS 11 Preceptorship in Nursing 2.0 CSU

Total Units 28.0

Programs Leading to an Associates Degree

Requirements for the Major:

*ANAT 35 Human Anatomy, and 5.0 CSU, UC
*ANAT 36 Human Physiology, or 5.0 CSU, UC
*ANAT 10A Introductory Human Anatomy, and 4.0 CSU, UC
*ANAT 10B Introductory Human Physiology 4.0 CSU, UC
*MICR 1 Principles of Microbiology, or 5.0 CSU, UC
*MICR 22 Microbiology, 4.0 CSU, UC
ENGL 1A Freshman Composition 3.0 CSU, UC
CHLD 10 Child Growth and Development, or 3.0 CSU, UC
PSYC 14 Developmental Psychology 3.0 CSU, UC
PSYC 1A Introduction to Psychology 3.0 CSU, UC
SPCH 1A Public Speaking 3.0 CSU, UC

Total Units 24.0 - 27.0

PSYC 1A must be completed prior to entrance into NURS 5: Psychiatric Nursing. CHLD 10, or PSYC 14 must be completed prior to entrance into NURS 6: Pediatric Nursing. *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 the Counseling Department or Advising Center to schedule an appointment.

Selection Process:

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

Procedure:

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

The Eligibility Appointment:

1. Once a student has completed all course prerequisites, they may request an appointment with a counselor or educational advisor.
Programs Leading to an Associates Degree

2. Students who have completed coursework at other colleges must bring the following information to their eligibility appointment:
   a. Official transcripts of college work completed at all colleges;
   b. If the prerequisite courses were completed at another college, a course description and a copy of the course syllabus;
   c. Students completing college coursework outside of the United will need to have their transcripts evaluated by an approved international transcript evaluation agency and must bring the final evaluation to their appointment (students may be able to obtain a list of agencies from the Admissions Office);
   d. 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 - November 30
March 1 - May 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 reaching, stooping, bending, kneeling, and crouching.
- 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 religions, 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 judgment/action which could result in death of a patient
- Exposed to products containing latex

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

Livestock Management
Agricultural Sciences Department
Major 20103

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

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

These programs are intended to prepare students for employment following graduation. Students desiring a Bachelor’s Degree (transfer program) should consult with the department chairperson or faculty advisor to discuss transferability of courses. The curriculum is flexible in nature to allow for previous experience and specialization in a given area of agriculture and agricultural business.

Requirements for the Major
Required courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AGAB 20</td>
<td>Microcomputer Applications in Agriculture</td>
<td>3.0</td>
</tr>
<tr>
<td>AGAG 1</td>
<td>Food Production, Land Use and Politics – A Global Perspective</td>
<td>3.0</td>
</tr>
<tr>
<td>AGAG 59</td>
<td>Work Experience in Agriculture, or</td>
<td>1.0</td>
</tr>
<tr>
<td>AGAG 60</td>
<td>Work Experience in Agriculture, or</td>
<td>2.0</td>
</tr>
<tr>
<td>AGAG 61</td>
<td>Work Experience in Agriculture, or</td>
<td>3.0</td>
</tr>
<tr>
<td>AGAG 62</td>
<td>Work Experience in Agriculture</td>
<td>4.0</td>
</tr>
<tr>
<td>AGAG 91</td>
<td>Agricultural Calculations</td>
<td>3.0</td>
</tr>
<tr>
<td>AGAN 1</td>
<td>Animal Science</td>
<td>3.0</td>
</tr>
<tr>
<td>AGAN 2</td>
<td>Animal Nutrition</td>
<td>3.0</td>
</tr>
<tr>
<td>AGAN 94</td>
<td>Animal Breeding</td>
<td>3.0</td>
</tr>
<tr>
<td>AGLA 14</td>
<td>Swine Production</td>
<td>3.0</td>
</tr>
<tr>
<td>AGLA 16</td>
<td>Horse Production</td>
<td>4.0</td>
</tr>
<tr>
<td>AGLA 17</td>
<td>Sheep Production</td>
<td>3.0</td>
</tr>
<tr>
<td>AGLA 30</td>
<td>Beef Production</td>
<td>3.0</td>
</tr>
<tr>
<td>AGLA 34</td>
<td>Livestock Judging and Selection</td>
<td>2.0</td>
</tr>
<tr>
<td>AGLA 96</td>
<td>Animal Sanitation and Disease Control</td>
<td>3.0</td>
</tr>
<tr>
<td>PLUS</td>
<td>Total Units</td>
<td>43.0 - 46.0</td>
</tr>
</tbody>
</table>

Manufacturing Technology
Aircraft Maintenance Technology & Manufacturing Department
Major 20918

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.

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>AGOR 53</td>
<td>Small Engine Repair I</td>
<td>3.0</td>
</tr>
<tr>
<td>AGOR 71</td>
<td>Landscape Construction Fundamentals</td>
<td>3.0</td>
</tr>
<tr>
<td>BUSM 20</td>
<td>Principles of Business</td>
<td>3.0</td>
</tr>
<tr>
<td>BUSM 66</td>
<td>Small Business Management</td>
<td>3.0</td>
</tr>
<tr>
<td>BUSS 35</td>
<td>Professional Selling</td>
<td>3.0</td>
</tr>
<tr>
<td>BUSS 36</td>
<td>Principles of Marketing</td>
<td>3.0</td>
</tr>
<tr>
<td>PLUS</td>
<td>Total Units</td>
<td>43.0 - 46.0</td>
</tr>
</tbody>
</table>

Marketing Management
Business Administration Department
Major 20510

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 or 5.0 CSU, UC
- BUSA 72 Bookkeeping - Accounting 5.0
- BUSB 20 Principles of Business 3.0 CSU, UC
- BUSB 61 Business Organization and Management 3.0 CSU
- BUSO 25 Business Communications 3.0 CSU
- BUSS 35 Professional Selling 3.0 CSU
- BUSS 36 Principles of Marketing 3.0 CSU
- BUSS 70 International Marketing Concepts 3.0
- BUSS 85 Microcomputer Applications 2.0
- CISB 15 Business Organizations and Technology 4.0 CSU, UC

General Education Requirements

- BUSC 17 Principles of Public Speaking 3.0 CSU, UC
- BUSC 1BH Principles of Economics – 3.0 CSU, UC
- BUSC 1B Principles of Economics – 3.0 CSU, UC
- BUSC 1AH Principles of Economics – 3.0 CSU, UC
- BUSC 1A Principles of Economics – 3.0 CSU, UC
- BUSC 18 Principles of Economics – Microeconomics or 3.0 CSU, UC
- BUSC 18H Principles of Economics – Microeconomics or Honors 3.0 CSU, UC
- BUSB 17 Applied Business Statistics 3.0 CSU, UC
- BUSB 60 Human Relations in Business 3.0 CSU
- BUSB 5 Business English 3.0
- Total Units 32.0

Mental Health Technology – Psychiatric Technician

Mental Health Department
Major 21208

Completion of coursework leads to an Associate in Science Degree. The Psychiatric Technology Program prepares 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
- PSYC 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 58D Advanced Medical-Surgical Nursing and Pharmacology for PT 4.0
- MENT 58L Advanced Medical-Surgical Nursing for Psychiatric Technicians Clinical 1.5
- MENT 70 Introduction to Psychiatric Technology Clinical Concepts 1.5
- MENT 70L Introduction to Psychiatric Technology Clinical Concepts 2.0
- MENT 72 Nursing Care of the Developmentally Disabled Person 7.0
- MENT 72L Nursing Care of the Developmentally Disabled Person – Clinical 5.0
- MENT 73L Psychiatric Nursing for Psychiatric Technicians Clinical 5.0
- MENT 73T Psychiatric Nursing for Psychiatric Technicians Clinical 6.0
- MENT 82 Work Experience in Mental Health Technology 2.0
- PSYC 1A Introduction to Psychology 3.0 CSU, UC
- Total Units 53.0

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

To remain in the program, students must maintain a “C” or better grade in all courses. The student will qualify to take the California State Board Examination upon completion of all the above courses, except MENT 82.

Entrance Requirements and Selection Procedures:

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

a. Be a high school graduate or equivalent. (All students who have taken coursework outside of the United States must have their transcript evaluated. Foreign transcripts will not be accepted without the evaluation.)

b. Be 18 years of age.

c. File a college application and be accepted as a student at Mt. San Antonio College.

d. Submit an application for the Mental Health/Psychiatric Technician Program to the Technology and Health Division Office (909) 594-5611, ext. 4750. All applications are dated upon receipt in the Technology and Health Division Office. A program begins each fall and spring semester.

e. Take the required English Placement Test (AWE). Eligibility for ENGL 68 is advised. If you have already taken a college placement exam within the past two years at another school, arrange to have your test scores forwarded to the Technology and Health Division Office. (If you were tested at Mt. San Antonio College, the office will obtain the test scores as long as an “Application for Admission” is on file with the Admissions and Records Office.) Testing is administered by the Assessment Center, located in the Student Services Center. Arrangements should be made with them to schedule a day and time to take the English Placement Test, if required. The Assessment Center is open Monday through Friday. You may contact them at (909) 594-5611, ext. 4265.

f. Forward two official transcripts of all coursework completed (high school, nursing school, and other than Mt. San Antonio College courses). One transcript must be sent to the Technology and Health Division Office and the other to the Admissions and Records Office.

g. For students who possess a college degree, the English Placement Test is not required. However, it will be necessary for a student to obtain two official copies of the course 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.

h. The College will make every effort to notify the student of acceptance by mail no less than two months prior to the beginning of a program.

i. For students who possess a college degree, the English Placement Test is not required. However, it will be necessary for a student to obtain two official copies of the course 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. (Restrictions may vary from one school to another.) Students must provide proof that they are in compliance with state and local laws and regulations.

i. Certain convictions may prevent a candidate from being licensed as a Psychiatric Technician.

j. All students may be required to complete 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.

Nursing

Nursing Department
Major 21203

The Mt. San Antonio College Nursing Program, approved and accredited by the California Board of Registered Nursing, is a two-year program designed to prepare men and women to give direct nursing care to clients in various practice settings. The program consists of course work in nursing, science, general education and clinical nursing practice at local hospitals and health agencies. Graduates of the program receive an Associate 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:

1. An overall grade point average of 2.5 for the Human Anatomy, Human Physiology, and Microbiology prerequisite courses with no grade less than a “C” for each course and no more than one repetition of any one of the courses.
Programs Leading to an Associates Degree

2. A cumulative grade point average (GPA) of 2.5 for all college coursework completed.
3. Eligibility for Math 51
4. High school graduation or GED or academic degree from an accredited college/university in the United States.
5. Criminal background check and drug screening must be completed prior to any patient contact.
6. A physical examination, including specific immunizations is required of all candidates prior to the beginning of nursing classes. 7. Current Level C-Provider CPR certification

Regarding Licensure:
The California Board of Registered Nursing (BRN) protects the consumer by screening applicants for licensure in order to identify potentially unsafe practitioners. The BRN may deny applications for interim permits, temporary licenses, and permanent licensure, if the applicant has been found guilty of dishonesty, fraud or deceit, felony child abuse, sex offender 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.bn.ca.gov.

Requirements for the Major

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>NURS 1A The Nursing Process I</td>
<td>4.7</td>
</tr>
<tr>
<td>NURS 1B The Nursing Process II</td>
<td>4.7</td>
</tr>
<tr>
<td>NURS 2 Pharmacology</td>
<td>2.0</td>
</tr>
<tr>
<td>NURS 3 Medical-Surgical Nursing: Locomotion/Sensation/Oncology/Immunology</td>
<td>3.5</td>
</tr>
<tr>
<td>NURS 4 Maternity Nursing</td>
<td>3.0</td>
</tr>
<tr>
<td>NURS 5 Psychiatric Nursing</td>
<td>3.0</td>
</tr>
<tr>
<td>NURS 6 Pediatric Nursing</td>
<td>3.0</td>
</tr>
<tr>
<td>NURS 7 Medical-Surgical Nursing: Nutrition/Elimination/Surgical Aspesis</td>
<td>7.0</td>
</tr>
<tr>
<td>NURS 8 Medical-Surgical Nursing: Circulation and Oxygenation</td>
<td>5.0</td>
</tr>
<tr>
<td>NURS 9 Leadership in Nursing</td>
<td>1.0</td>
</tr>
<tr>
<td>NURS 10 Medical-Surgical Nursing: Integration/Regulation</td>
<td>4.0</td>
</tr>
<tr>
<td>NURS 11 Preceptorship in Nursing</td>
<td>2.0</td>
</tr>
<tr>
<td>Total Units</td>
<td>43.0</td>
</tr>
</tbody>
</table>

Requirements for the Major:

*ANAT 35 Human Anatomy, and 5.0 CSU, UC
*ANAT 36 Human Physiology, or 5.0 CSU, UC
*ANAT 10A Introductory Human Anatomy, and 4.0 CSU, UC
*ANAT 10B Introductory Human Physiology 4.0 CSU, UC
*MICR 1 Principles of Microbiology, or 5.0 CSU, UC
*MICR 22 Microbiology, 4.0 CSU, UC
ENGL 1A Freshman Composition 3.0 CSU, UC
CHLD 10 Child Growth and Development, or 3.0 CSU, UC
PSYC 14 Developmental Psychology 3.0 CSU, UC
PSYC 1A Introduction to Psychology 3.0 CSU, UC
SPCH 1A Public Speaking, or 3.0 CSU, UC

Total Units 24.0 - 27.0

PSYC 1A must be completed prior to entrance into NURS 5: Psychiatric Nursing, CHLD 10, or PSYC 14 must be completed prior to entrance into NURS 6: Pediatric Nursing.

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

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 the Counseling Department or Advising Center to schedule an appointment.

Application Process:

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

Procedure:

Students must complete all course prerequisites prior to requesting an appointment for certifying readiness to enter into the Nursing lottery process.

Course Prerequisites:

a. ANAT 10A or 35, Human Anatomy;
   b. ANAT 10B or 36, Human Physiology
   c. MICR 1 or 22, Microbiology
   d. ENGL 1A, Freshman Composition

Eligibility for entering the Nursing Admission Lottery will be based on the following performance criteria:

a. A grade point average of 2.5 in Human Anatomy, Human Physiology and Microbiology. 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.

Eligibility Appointment:

1. Once a student has completed all course prerequisites, they may request an appointment with a counselor or educational advisor.
2. Students who have completed coursework at other colleges must bring the following information to their eligibility appointment:
   a. Official transcripts of all college work completed at all colleges;
   b. If the prerequisite courses were completed at another college, a course description and a copy of the course syllabus;
   c. 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.
   d. 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 - November 30
- March 1 - May 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.

English Language Skills:

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

Note: Final selection of students for each nursing class will be determined by lottery.

All Applicants are Required to meet the Essential Functions for Success in the Nursing Program:

Physical Demands

- Perform prolonged, extensive, or considerable standing/walking, lifting positioning, pushing, and/or transferring patients
- Possess the ability to perform fine motor movements with hands and fingers
- Possess the ability for extremely heavy movement (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 judgment/action which could result in death to themselves and others.
- Exposed to products containing latex
Paralegal/Legal – Bankruptcy Specialty
Business Administration Department Major 21401

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

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

The American Bar Association has reviewed the Paralegal/Legal Specialist Program and found it in compliance with the standards developed by the Standing Committee on Legal Assistant Programs. The Paralegal/Legal 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 and Post-Trial 3.0 CSU
- PLGL 33C Administrative Law Office Procedures 3.0 CSU
- PLGL 33D Contract Law 3.0 CSU
- PLGL 34 Property Law 3.0 CSU
- PLGL 45 Creditors’ Rights 3.0 CSU

Total Units 38.0

Special Information:
The ABA does not recognize the following courses as meeting its definition of General Education: ARTD 15A, ARTD 17A, ARTD 20, ARTD 25A, ARTS 20A, ARTS 40A, HTH 111, 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.
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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<tr>
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Total Units 38.0

Recommended Electives:

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Total Units 35.0

Special Information:

The ABA does not recognize the following courses as meeting its definition of General Education: ARTB 14, ARTD 15A, ARTD 17A, ARTD 20, ARTD 25A, ARTS 30A, ARTS 40A, DRMA 11, MUS 7, AD 3, and COUN 5. Students developing their educational plan must select another course from the Mt. SAC General Education area which will satisfy that area’s General Education requirements.

Paralegal/Legal – Criminal Specialty Business Administration Department Major 21402

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 performance, under the direction and supervision of an attorney, of specifically delegated substantive legal work.

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.

Requirements for the Major

Required courses:

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<th>Course</th>
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Total Units 35.0

Recommended Electives:

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Total Units 35.0

Special Information:

The ABA does not recognize the following courses as meeting its definition of General Education: ARTB 14, ARTD 15A, ARTD 17A, ARTD 20, ARTD 25A, ARTS 30A, ARTS 40A, THTR 11, MUS 7, AD 3 and COUN 5. Students developing their educational plan must 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 21404

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

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.

Requirements for the Major

Required courses:

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Total Units 35.0

Recommended Electives:

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Total Units 35.0

Special Information:

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

requirements for the major

Recommended courses:

AGAG 1 Food Production, Land Use and Politics – A Global Perspective 3.0 CSU, UC
AGOR 4 Park Management 3.0
AGOR 5 Park Facilities 3.0
AGOR 13 Landscape Design 3.0 CSU
AGOR 24 Integrated Pest Management 3.0 CSU
AGOR 29 Ornamental Plants — Herbaceous 3.0 CSU, UC
AGOR 30 Ornamental Plants — Trees and Woody Shrubs 3.0 CSU, UC
AGOR 39 Turf Grass Production and Management 3.0 CSU
AGOR 51 Tractor and Landscape Equipment Operations 3.0 CSU
AGOR 62 Landscape Irrigation – Design and Installation 3.0 CSU
AGOR 63 Landscape Irrigation Systems Management 3.0
AGOR 71 Landscape Construction Fundamentals 3.0 CSU
AGOR 75 Urban Arboriculture 3.0
AGOR 91 Work Experience in Nursery Operations, or 1.0
AGOR 92 Work Experience in Nursery Operations, or 2.0
AGOR 93 Work Experience in Nursery Operations, or 3.0
AGOR 94 Work Experience in Nursery Operations, or 4.0
CSB 15 Microcomputer Applications 4.0 CSU, UC

Total Units 44.0 - 47.0

Photography

Photographics Department Major 21002

This program is designed to prepare the student for employment in the field of photography. A variety of career opportunities are available in photography, art, cinema, communications, industrial arts, graphics, and journalism. Students desiring a Bachelor's Degree should consult with an advisor or catalog of the institution they wish to attend regarding transferability of courses.

Requirements for the Major

Required courses:

GRAP 10 Basic Digital and Film Photography 3.0 CSU, UC
PHOT 10 Advanced Professional Photography 3.0
PHOT 11 Advanced Professional Photography 4.0
PHOT 12 Photographic Alternatives 3.0 CSU, UC
PHOT 14 History of Photography 3.0 CSU, UC
PHOT 16 Fashion Photography, or 3.0
PHOT 18 Portrait and Wedding Photography 3.0
PHOT 19 Professional Photography 3.0
PHOT 20 Color Photography 3.0
PHOT 21 Exploring Color Photography 3.0
PHOT 28 Photography Portfolio 2.0
PHOT 29 Photography Portfolio 2.0
PHOT 30 Commercial and Illustrative Photography 3.0

Total Units 33.0

Recommended Electives:

AHIS 1 Understanding the Visual Arts, or 3.0
ARTB 1 Understanding the Visual Arts 3.0
GRAP 12 Advanced Photo Editing with Photoshop 3.0
PHOT 1 Laboratory Studies: Black and White Photography 3.0
PHOT 2 Laboratory Studies: Color Photography 3.0

Physical Education

Physical Education Department Major 20806

This program is designed to prepare students for employment in the field of Physical Education. Students desiring a Bachelor's Degree should consult with a counselor or advisor to file an educational plan and to discuss transferability.

Requirements for the Major

Required courses:

ANAT 35 Human Anatomy 5.0 CSU, UC
ANAT 36 Human Physiology 5.0 CSU, UC
NF 10 Nutrition for Personal Health and Wellness, or 3.0 CSU
NF 25 Essentials of Nutrition, or 3.0 CSU, UC
NF 25H Essentials of Nutrition – Honors 3.0 CSU, UC
PE 3 First Aid and CPR, or 3.0 CSU, UC
PE 5 Advanced First Aid/CPR/Emergency Response 3.0 CSU, UC
PE 17 Introduction to Physical Education 3.0 CSU, UC
PE 19 Introduction to Care/Prevention of Activity/ Sports-Related Injuries 3.0 CSU, UC
PE 34 Fitness for Living 3.0 CSU, UC
Programs Leading to an Associates Degree

### PLUS
Select eight (8) courses from:

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<td>PE-A</td>
<td>Physical Education: Aquatics</td>
<td>0.5 - 2.0</td>
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<td>PE-F</td>
<td>Physical Education: Fitness</td>
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<td>PE-I</td>
<td>Physical Education: Individual</td>
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<td>PE-L</td>
<td>Physical Education: Adaptive</td>
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<tr>
<td>PE-S</td>
<td>Physical Education: Team Sports</td>
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**Total Units:** 28.6 - 41.5

### Psychiatric Technician to RN

#### Mental Health Department

**Major 21209**

The Mt. San Antonio College Nursing Program, approved and accredited by the California Board of Registered Nursing, is a two-year program designed to prepare men and women to give direct nursing care to clients in various practice settings. The program consists of course work in nursing, science, general education and clinical nursing practice at local hospitals and health agencies. Graduates of the program receive an Associate 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.

#### Non-course requirements:

1. An overall grade point average of 2.5 for the Human Anatomy, Human Physiology, and Microbiology prerequisite courses with no grade less than a “C” for each course and no more than one repetition of any.
2. A cumulative grade point average (GPA) of 2.5 for all college coursework completed.

#### Requirements for the Major:

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<td>ANAT 10B</td>
<td>Introductory Human Physiology, or</td>
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<td>CSU, UC</td>
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<td>MICR 1</td>
<td>Principles of Microbiology, or</td>
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<td>MICR 22</td>
<td>Microbiology</td>
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**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.

#### 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 the Counseling Department or Advising Center 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.

**Procedures:**

1. Eligibility for MATH 51.
2. High school graduation or GED or academic degree from an accredited college/university in the United States.
3. Possess a current California Psychiatric Technician License.
4. Criminal background check and drug screening must be completed prior to any patient contact.
5. A physical examination, including specific immunizations is required of all candidates prior to the beginning of nursing classes.
6. Current Level C – Provider CPR certification
7. 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 start of class.)

#### Appointments for Eligibility Verification will only be made during the Following Months:

- September 1 - November 30
- March 1 - May 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 judgment/action which could result in death
- Exposed to products containing latex

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

### Radio Broadcasting: Behind the Scenes
**Art Department**
**Major 20606**
The Radio Broadcasting Behind-the-Scenes Degree is designed for students who are interested in the non-performance side of the broadcasting industry. Instruction in this major prepares students for entry-level jobs in a variety of areas including production, promotion, copywriting and management. Students also receive instruction in the business side of the industry and can further customize their program by selecting from a variety of optional courses.

**Requirements for the Major**
**Required courses:**
- R-TV 01 Introduction to Broadcasting 3.0 CSU
- R-TV 09 Broadcast Sales and Promotion 3.0 CSU
- R-TV 10 Radio Management and Programming 3.0 CSU
- R-TV 11A Beginning Radio Production 3.0 CSU
- R-TV 11B Advanced Radio Production 3.0 CSU
- R-TV 12 Commercial Copywriting 3.0 CSU
- R-TV 15 Broadcast Business Practices 3.0 CSU
- R-TV 97A Radio/Entertainment Industry Seminar 1.0
- R-TV 97B Radio/Entertainment Industry Internship 1.0

**PLUS**
**Select nine (9) units from:**
- R-TV 03 Sportscasting and Reporting 1.5
- R-TV 04 Broadcast News Field Reporting 3.0
- R-TV 05 Radio-TV Newswriting 3.0
- R-TV 06 Broadcast Traffic Reporting 1.5
- R-TV 08 KSAK Radio Studio Operations 2.0 CSU
- R-TV 17 Internet Radio Broadcasting 3.0
- R-TV 26 Legal Issues in Entertainment Law 3.0
- R-TV 27 Radio Drama 3.0

**Total Units 36.0 - 37.0**

### Radio Broadcasting: On the Air
**Art Department**
**Major 20605**
The Radio Broadcasting On-The-Air Degree is designed to prepare students for an entry-level job in a variety of performance areas of the broadcasting industry, including disc jockey, news anchor, sportscaster, and commercial voice-overs. Students also receive instruction in the business side of the industry and can further customize their program by selecting from a variety of optional courses.

**Requirements for the Major**
**Required courses:**
- R-TV 01 Introduction to Broadcasting 3.0 CSU
- R-TV 02 Radio and Television Announcing 3.0 CSU
- R-TV 05 Radio-TV Newswriting 3.0
- R-TV 07 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 Industry Seminar 1.0
- R-TV 97B Radio/Entertainment Industry Internship 1.0

**PLUS**
**Select nine (9) units from:**
- R-TV 03 Sportscasting and Reporting 1.5
- R-TV 04 Broadcast News Field Reporting 3.0
- R-TV 06 Broadcast Traffic Reporting 1.5
- R-TV 08 KSAK Radio Studio Operations 2.0 CSU
- R-TV 09 Broadcast Sales and Promotion 3.0
- R-TV 10 Radio Management and Programming 3.0
- R-TV 12 Commercial Copywriting 3.0
- R-TV 17 Internet Radio Broadcasting 3.0
- R-TV 26 Legal Issues in Entertainment Law 3.0
- R-TV 27 Radio Drama 3.0

**Total Units 36.0 - 37.0**

**Recommended Electives:**
- ANIM 115 Storyboarding
Programs Leading to an Associates Degree

d. After completion of prerequisites, submit an application for the Radiologic Technology Program to the Technology and Health Division Office (909) 594-5611, ext. 4750. All applications are dated upon receipt in the Technology and Health Division Office. A program begins each summer session.

e. Take the college placement examination which is used as an indicator. If you have already taken a college placement 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. Arrangements should be made with the Service Center to schedule a date and time to take the college placement examination if required. The Assessment Center is open Monday through Friday. You may contact them at (909) 594-5611, ext. 4265.

f. Complete the following prerequisite courses with a minimum grade of “C” in each course:
   1. General High School Algebra (one year), or Introductory College Algebra (one semester), or MATH 51 – Elementary Algebra, or equivalent;
   2. General High School Chemistry (one year), or Introductory College Chemistry (one semester), or CHEM 10, Chemistry for Allied Health Chemistry, or equivalent.

   Students must complete prerequisite courses before applying to the program.

g. 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.

h. For students who possess a college degree, the English placement test is not required. However, it will be necessary for a student to obtain two official copies of the college transcript showing the degree issued. One official transcript must be sent to the Technology and Health Division Office, and the other to the Admissions and Records Office.

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

Request the transcript for the Division Office be addressed as follows:

Example:
Mt. San Antonio College Technology and Health Division Radiologic Technology Program 1100 North Grand Avenue Walnut, CA 91789-1399

i. A physical examination, certain immunizations, and malpractice insurance are required of all candidates within two years prior to entering into the clinical setting. Drug testing will be performed as part of the physical examination for all radiologic technology students. Forms and information will be provided at that time.

j. All students may be required to complete a background check prior to entering the clinical education phase.

k. An orientation with the Radiologic Technology Department will be held during the spring semester. Please contact the Technology and Health Division Office for date and time of orientation.

l. Make an appointment with an educational advisor to review general education requirements for graduation.

Selection Procedure
Selection of students is based upon the completion of the above admission requirements and date of application. The Department will make every effort to notify the applicant of acceptance by mail no less than one month prior to beginning of a program.

Program Completion Requirements

a. In addition to the major requirements and general education, students must also complete a course in venipuncture for radiographers. This course is offered through Community Education but may be taken elsewhere with prior approval from the department.

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

Real Estate
Business Administration Department
Major 20512

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

Requirements for the Major

Required courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>CSU, UC</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUSM 20</td>
<td>Principles of Business</td>
<td>3.0</td>
<td>CSU, UC</td>
</tr>
<tr>
<td>BUSM 60</td>
<td>Human Relations in Business</td>
<td>3.0</td>
<td>CSU</td>
</tr>
<tr>
<td>BUSO 25</td>
<td>Business Communications</td>
<td>3.0</td>
<td>CSU</td>
</tr>
<tr>
<td>BUSR 50</td>
<td>Real Estate Principles</td>
<td>3.0</td>
<td>CSU</td>
</tr>
<tr>
<td>BUSR 51</td>
<td>Real Estate Practice</td>
<td>3.0</td>
<td>CSU</td>
</tr>
<tr>
<td>BUSR 52</td>
<td>Real Estate Practice, or</td>
<td>3.0</td>
<td>CSU</td>
</tr>
<tr>
<td>BUSR 52D</td>
<td>Real Estate Practice Work</td>
<td>4.0</td>
<td></td>
</tr>
<tr>
<td>BUSR 53</td>
<td>Real Estate Finance</td>
<td>3.0</td>
<td></td>
</tr>
<tr>
<td>BUSR 54</td>
<td>Real Estate Appraisal</td>
<td>3.0</td>
<td></td>
</tr>
<tr>
<td>BUSR 55</td>
<td>Real Estate Economics</td>
<td>3.0</td>
<td></td>
</tr>
<tr>
<td>BUSR 56</td>
<td>Advanced Real Estate Appraisal</td>
<td>3.0</td>
<td></td>
</tr>
<tr>
<td>BUSR 57</td>
<td>Income Tax Aspects of Real Estate Investments</td>
<td>3.0</td>
<td></td>
</tr>
<tr>
<td>BUSR 58</td>
<td>Real Estate Property Management</td>
<td>3.0</td>
<td></td>
</tr>
<tr>
<td>BUSR 60</td>
<td>Escrow Procedures I</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BUSR 65</td>
<td>Principles of Marketing</td>
<td>3.0</td>
<td>CSU</td>
</tr>
<tr>
<td>BUSR 15</td>
<td>Microcomputer Applications</td>
<td>4.0</td>
<td>CSU, UC</td>
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Total Units: 34.0 - 35.0

Recommended Electives:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>CSU, UC</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUSA 7</td>
<td>Principles of Accounting - Financial, or</td>
<td></td>
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</tr>
<tr>
<td>BUSA 11</td>
<td>Fundamentals of Accounting</td>
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</tr>
<tr>
<td>BUSA 12</td>
<td>Bookkeeping - Accounting</td>
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<tr>
<td>BUSL 18</td>
<td>Business Law</td>
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<td>BUSM 66</td>
<td>Small Business Management</td>
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<td></td>
</tr>
<tr>
<td>BUSO 5</td>
<td>Business English</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BUSO 26</td>
<td>Oral Communications for Business</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BUSR 57</td>
<td>Income Tax Aspects of Real Estate Investments</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BUSR 59</td>
<td>Real Estate Property Management</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BUSR 76</td>
<td>Escrow Procedures I</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BUSR 35</td>
<td>Professional Selling</td>
<td></td>
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</tr>
<tr>
<td>COMP 1</td>
<td>Computer Keyboarding</td>
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</tr>
<tr>
<td>PSYC 1A</td>
<td>Introduction to Psychology</td>
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</table>

Real Estate Appraisal
Business Administration Department
Major 20513

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

Requirements for the Major

Required courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>BUSA 11</td>
<td>Fundamentals of Accounting</td>
<td>3.0</td>
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<tr>
<td>BUSC 1A</td>
<td>Principles of Economics – Macroeconomics, or</td>
<td>3.0</td>
<td>CSU, UC</td>
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<td>BUSC 1AH</td>
<td>Principles of Economics – Macroeconomics – Honors, or</td>
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<td>BUSC 1B</td>
<td>Principles of Economics – Microeconomics</td>
<td>3.0</td>
<td>CSU, UC</td>
</tr>
<tr>
<td>BUSC 1BH</td>
<td>Principles of Economics – Microeconomics – Honors</td>
<td>3.0</td>
<td>CSU, UC</td>
</tr>
<tr>
<td>BUSR 50</td>
<td>Real Estate Principles</td>
<td>3.0</td>
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<tr>
<td>BUSR 51</td>
<td>Legal Aspects of Real Estate</td>
<td>3.0</td>
<td></td>
</tr>
<tr>
<td>BUSR 53</td>
<td>Real Estate Finance</td>
<td>3.0</td>
<td></td>
</tr>
<tr>
<td>BUSR 54</td>
<td>Real Estate Appraisal</td>
<td>3.0</td>
<td></td>
</tr>
<tr>
<td>BUSR 545E</td>
<td>Standards, Ethics and Statistics for Professional Practice</td>
<td>1.5</td>
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<tr>
<td>BUSR 56</td>
<td>Advanced Real Estate Appraisal</td>
<td>3.0</td>
<td></td>
</tr>
<tr>
<td>BUSR 66</td>
<td>General Appraiser Report</td>
<td>3.0</td>
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<tr>
<td>CISP 15</td>
<td>Microcomputer Applications</td>
<td>4.0</td>
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Total Units: 29.5

Recommended Electives:

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<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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</tr>
</thead>
<tbody>
<tr>
<td>BUSM 20</td>
<td>Principles of Business</td>
<td>3.0</td>
<td>CSU, UC</td>
</tr>
<tr>
<td>BUSM 60</td>
<td>Human Relations in Business</td>
<td>3.0</td>
<td>CSU</td>
</tr>
<tr>
<td>BUSO 25</td>
<td>Business Communications</td>
<td>3.0</td>
<td>CSU</td>
</tr>
<tr>
<td>BUSR 50</td>
<td>Real Estate Principles</td>
<td>3.0</td>
<td>CSU</td>
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<tr>
<td>BUSR 51</td>
<td>Legal Aspects of Real Estate</td>
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<td></td>
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<tr>
<td>BUSR 53</td>
<td>Real Estate Finance</td>
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<td>Real Estate Appraisal</td>
<td>3.0</td>
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</tr>
<tr>
<td>BUSR 545E</td>
<td>Standards, Ethics and Statistics for Professional Practice</td>
<td>1.5</td>
<td></td>
</tr>
<tr>
<td>BUSR 56</td>
<td>Advanced Real Estate Appraisal</td>
<td>3.0</td>
<td></td>
</tr>
<tr>
<td>BUSR 66</td>
<td>General Appraiser Report</td>
<td>3.0</td>
<td></td>
</tr>
<tr>
<td>BUSR 62</td>
<td>Mortgage Loan Broking and Lending</td>
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</tbody>
</table>

Registered Veterinary Technology
Agricultural Sciences Department
Major 20105

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 CSU)
- **AGHE 54**: Veterinary Office Procedures (3.0 CSU)
- **AGLI 95**: Anatomy of Domestic Animals (4.0 CSU)
- **AGLI 96**: Animal Sanitation and Disease Control (3.0 CSU)
- **AGLI 98**: Physiology of Domestic Animals (2.0 CSU)

Required courses 2nd year:

- **AGHE 60**: Medical Nursing and Animal Care (4.0 CSU)
- **AGHE 61**: Surgical Nursing (4.0 CSU)
- **AGHE 62A**: Clinical Pathology (4.0 CSU)
- **AGHE 62B**: Clinical Pathology (4.0 CSU)
- **AGHE 64**: Veterinary Pharmacology (3.0 CSU)
- **AGHE 65**: Veterinary Radiography (2.0 CSU)
- **AGHE 79**: Laboratory Animal Medicine and Care (3.0 CSU)
- **AGHE 84A**: Applied Animal Health Procedures, or (1.0)
- **AGHE 84B**: Applied Animal Health Procedures (1.0)
- **AGHE 85**: Seminar in Animal Health Technology (1.0)

PLUS

Select four (4) units from:

- **AGHE 83A**: Work Experience in Animal Health (1.0)
- **AGHE 83B**: Work Experience in Animal Health (2.0)

PLUS

Select six (6) units from:

- **AGLI 12**: Exotic Animal Management (3.0 CSU)
- **AGLI 14**: Swine Production (3.0 CSU)

### Respiratory Therapy

**Respiratory Technology Department Major 21205**

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 affect the patient’s ability to breathe effectively. By applying medical gases under pressure — i.e., compressed air, oxygen, and other mixtures — to the airways through the use of various kinds of equipment, the therapist, under the direction of the physician, treats the diseased or ineffective respiratory system. Some mechanical aptitude and manual dexterity is helpful in learning the operation of specialized equipment. This includes diagnostic apparatus which aids the physician in detecting cardiorespiratory diseases.

Requirements for the Major

Required courses:

- **ANAT 10A**: Introductory Human Anatomy (4.0 CSU, UC)
- **ANAT 10B**: Introductory Human Physiology (4.0 CSU, UC)
- **CHEM 10**: Chemistry for Allied Health Majors (4.0 CSU, UC)
- **MATH 51**: Elementary Algebra (4.0)
- **MEDI 90**: Medical Terminology (3.0 CSU)
- **RESD 50**: Theory and Principles of Respiratory Therapy (2.0 CSU)
- **RESD 51A**: Respiratory Therapy Science (4.0 CSU)
- **RESD 51B**: Respiratory Therapy Science (4.0 CSU)
- **RESD 52**: Pulmonary Anatomy and Physiology (3.0 CSU)
- **RESD 53**: Cardiopulmonary Pathophysiology (3.0 CSU)
- **RESD 55**: Adult Respiratory Intensive Care (3.0 CSU)
- **RESD 56A**: Techniques of Respiratory Therapy (2.5 CSU)
- **RESD 56B**: Techniques of Respiratory Therapy (6.0 CSU)
- **RESD 56C**: Techniques of Respiratory Therapy (2.5 CSU)
- **RESD 56D**: Techniques of Respiratory Therapy (6.0 CSU)
- **RESD 57A**: Special Procedures for Respiratory Care (1.5 CSU)
- **RESD 57B**: Special Procedures for Respiratory Care (1.5 CSU)
- **RESD 58**: Neonatal Intensive Care (3.0 CSU)
- **RESD 59**: Respiratory Therapeutic Modalities (3.0 CSU)
- **RESD 60**: Comprehensive Pulmonary Assessment (2.0 CSU)
- **RESD 61**: Current Issues in Respiratory Care (3.0 CSU)

**Total Units**: 69.0

**Special Information**: The completion of the Respiratory Therapy Program and receipt of the Certificate of Completion requires completion of the Associate Degree. The student may elect to pursue either the Associate in Science or the 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 required courses, the student is granted a Certificate of Completion in Respiratory Therapy. The certificate will permit the student to sit for all National Board for Respiratory Care (NBRC) Incorporated, examinations.

**Entrance Requirements and Selection Procedures**: 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. Testing is administered by the Assessment Center located in the Student Services Center, Building 9B. You may contact them at (909) 594-5611, ext. 4265, to set up an appointment. If you have taken English and math at another college, please provide college transcripts. For students who possess a college degree, the college placement examination is not required. However, it will be necessary for the applicant to obtain two official copies of the college transcript showing the degree issued. One official transcript must be sent to the Respiratory Therapy Program Office and the other to the Admissions Office. If the degree was obtained at Mt. SAC, it is not necessary to request transcripts. Transcripts should be addressed as follows:

**Example**: Mt. San Antonio College Technology and Health Division Respiratory Therapy Program 1100 North Grand Avenue Walnut, CA 91789-1389

4. Submit an application for the Respiratory Therapy Program to the Technology and Health Division Office (Bldg. 28A, Room 101E), (909) 594-5611, ext. 4750. All applications are dated upon receipt.

5. The following courses are advisory prerequisites. It is recommended, but not required, that these courses be completed prior to starting the program. Completion of these course is mandatory prior to graduation from the Respiratory Therapy Program.

|MATH 51| Elementary Algebra, or equivalent (4.0)
|CHEM 10| Chemistry for Allied Health Majors, or equivalent (4.0 CSU, UC)
|MEDI 90| Medical Terminology, or equivalent (3.0 CSU)
|ANAT 10A| Introductory Human Anatomy, or equivalent, and (4.0 CSU, UC)
|ANAT 10B| Introductory Human Physiology, or equivalent (4.0 CSU, UC)
Programs Leading to an Associates Degree

Foreign Transcripts:
All coursework taken outside of the United States must be analyzed by a designated agency for foreign transcript evaluation. No foreign coursework will be accepted without this evaluation. It is the sole responsibility of the applying student to get the evaluation completed before entry into the program. Information for transcript evaluation is available in the Technology and Health Division.

Selection Procedure:
Selection for the Respiratory Therapy program is on a first-come/first-served basis. It is strongly recommended that the advisory prerequisites are completed prior to entering the program. Completion is not, however, mandatory for acceptance.

A.S. Degree Requirements:
All students entering the Respiratory Therapy Program MUST complete all the major course requirements and the general education requirements necessary to complete the Associate Degree before a Certificate of Completion in Respiratory Therapy will be granted. The 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 may also be required as part of this physical examination.

Sign Language/Interpreting
Sign Language Department
Major 20801

Upon completion of this program, the graduate will be functional in sign language and will be able to interpret in a variety of situations. The program provides an overview of the Deaf community, careers working with Deaf people, teaches American Sign Language, offers specific interpreting courses, and includes training in the ethics and practical approaches that must be understood by a practicing interpreter.

Students who complete the required courses listed below and who also complete the graduation requirements of Mt. San Antonio College will be awarded the Associate in Science Degree in Sign Language/Interpreting.

Requirements for the Major
Required courses:
SIGN 80 American Sign Language I 4.0 CSU, UC
SIGN 81 American Sign Language II 4.0 CSU, UC
SIGN 82A American Sign Language III 4.0 CSU, UC
SIGN 82B American Sign Language IV 4.0 CSU, UC
SIGN 82C American Sign Language V 4.0
SIGN 83 Deaf Perspectives 3.0
SIGN 85 American Deaf Culture 3.0 CSU, UC
SIGN 86 American Sign Language Structure 3.0 CSU, UC
SIGN 87 Translation: American Sign Language/English 3.0
SIGN 88 Principles of Sign Language Interpreting 3.0
SIGN 88A Interpreting 4.0
SIGN 88B Advanced Interpreting 4.0
SIGN 88L Practicum 1.0
SPCH 1A Public Speaking, or 3.0 CSU, UC
SPCH 1AH Public Speaking – Honors 3.0 CSU, UC

Total Units 47.0

Recommended Electives:
SIGN 89 Finger Spelling
SIGN 92 Oral Interpreting
SIGN 99 Special Projects in Sign Language/Interpreting

Special Information:
To remain in the program, students must maintain a “C” or better grade in all courses.

Small Business Management
Accounting and Management Department
Major 20508

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

Requirements for the Major
Required courses:
BUSM 7 Principles of Accounting – Financial 5.0 CSU, UC
BUSM 10 Principles of Continuous Quality Improvement 3.0
BUSM 20 Principles of Business 3.0 CSU, UC
BUSM 60 Human Relations in Business 3.0 CSU
BUSM 61 Business Organization and Management 3.0 CSU
BUSM 62 Human Resource Management 3.0
BUSM 66 Small Business Management 3.0
BUS 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, or
BUSM 82 Work Experience in Business, or
BUSM 83 Work Experience in Business, or
BUSM 84 Work Experience in Business
BUSM 85 Special Issues in Business, or
BUSM 86 Special Issues in Marketing

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

Television Production
Art Department
Major 20602

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, including camera operation, audio recording and mixing, editor, DVD author, creenwriter, director, and general production crew member. The program gives the student a solid basis in both the performance and the business sides of broadcasting and production. Students can further customize their program by selecting from the variety of optional courses.

Requirements for the Major
Required courses:
R-TV 01 Introduction to Broadcasting 3.0 CSU
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 98A Television/Film Seminar 1.0
R-TV 98B Television/Film Internship 1.0
PLUS
Select twelve (12) units from:
R-TV 05 Radio and Television Newswriting 3.0
R-TV 18 Writing for Television/Film 3.0 CSU
R-TV 20 Television News Production 3.0
R-TV 21 Remote Television Production and Engineering 3.5

Total Units 29.0

Recommended Electives:
ANIM 115 Stop Motion Animation
R-TV 26 Legal Issues in Entertainment Law
THTR 17 Acting for Television

Welding
Air Conditioning, Water & Welding Technologies
Major 20919

This program is designed to prepare the student for employment in the broad field of welding. It leads to occupations in manufacturing and repair and helps prepare the student for positions in supervision.

Courses in the welding curriculum prepare students for welding certification. The college is a testing agency for the City of Los Angeles and is authorized to administer the performance test for the Structural Welding Certificate. There is a $50 charge for students and $60 for non-students to take this test. Topics of the written portion of the test which is administered by the city are reviewed in various welding courses offered by the college.

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

Requirements for the Major
Required courses:
WELD 40 Introduction to Welding 2.0 CSU
WELD 50 Oxyacetylene Welding 2.0
WELD 51 Basic Electric Arc Welding 2.0
WELD 53A Welding Metallurgy 3.0 CSU
WELD 70A Beginning Arc Welding 3.0
WELD 70B Intermediate Arc Welding 3.0
WELD 70C Certification for Welders 3.0
WELD 80 Fabrication and Construction Welding 3.0

Total Units 21.0

Recommended Electives:
BUSM 61 Business Organization and Management 3.0
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 of Study
Leading to a Certificate

Section 8
Mt. San Antonio College offers a variety of programs designed to develop or enhance vocational proficiency for which certificates are awarded upon completion. The possession of such a certificate is favorably recognized by business and industry and is frequently a requirement for professional advancement. Detailed brochures describing certificate programs are available.

**Students who are in the last semester of a certificate program must:**
- Submit an Application for Certificate form in the Admissions Office
- At least 1/2 of the credits earned toward the certificate must be completed at Mt. SAC
- A grade of “C” or better must be earned in each course to be applied to the certificate

Certificate programs listed do not necessarily qualify as specific majors for a two-year A.S. Degree program; however, most can be readily phased into existing majors. Students should consult the course descriptions in this Catalog to determine prerequisites for each course listed as part of a certificate program. Consult counselors for further information.

Courses of study outlined show how students may select and combine subjects in a balanced program that will prepare them for a specific vocation or further professional training.

These curricula should be considered only as patterns or samples to guide students in outlining their college program since they may need to be modified to fit students’ personal plans. Students who desire help in planning for a vocation or profession not listed should seek the advice of a counselor. It is apparent that Mt. San Antonio College offers students a wide range of educational experiences. They will profit from the offerings here only to the extent that they carefully plan a program of study best suited to their own pattern of interests, aptitudes, personal characteristics, and previous experiences.

### ALPHABETICAL LISTING — CERTIFICATES

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Programs of Study Leading to a Certificate

Accounting

Accounting and Management Department Certificate 60502

The Accounting Certificate incorporates various accounting courses that prepare the student for entry-level positions in the clerical/accounting field. Common duties performed in this field include 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 (21 Units) or Accounting – Managerial Certificate (19 Units) as follows:

**Accounting – Bookkeeping**

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<td>BUS 8</td>
<td>Principles of Accounting – Managerial</td>
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<td>BUS 21</td>
<td>Cost Accounting, or</td>
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<td>BUS 58</td>
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<td>BUS 75</td>
<td>Using Microcomputers in Financial Accounting, or</td>
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<td>BUS 81</td>
<td>Work Experience in Accounting</td>
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<tr>
<td>BUS 76</td>
<td>Using Microcomputers in Managerial Accounting, or</td>
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<td>BUSO 25</td>
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**Total Units**: 30.0 - 32.0

**Accounting – Managerial**

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**Total Units**: 21.0

Plus the following courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS 72</td>
<td>Bookkeeping – Accounting</td>
</tr>
<tr>
<td>BUS 53</td>
<td>Ten-Key Calculations, or</td>
</tr>
<tr>
<td>BUS 81</td>
<td>Work Experience in Accounting</td>
</tr>
<tr>
<td>BUSO 5</td>
<td>Business English, or</td>
</tr>
<tr>
<td>BUSO 25</td>
<td>Business Communications</td>
</tr>
</tbody>
</table>

**Accounting – Computerized**

Accounting and Management Department Certificate 60503

The Computerized Accounting Certificate provides the student with basic accounting skills and knowledge together with additional training in computer applications common to the auditing field. This certificate program prepares the student for an entry-level position as a computerized accounting clerk. Common duties performed in this field include 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:

**Accounting – Financial Planning**

Accounting and Management Department Certificate 60509

The Financial Planning Certificate provides the student 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:
Completion of Accounting – Bookkeeping Certificate as follows:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS 7</td>
<td>Principles of Accounting – Financial</td>
<td>5.0 CSU, UC</td>
</tr>
<tr>
<td>BUS 8</td>
<td>Principles of Accounting – Managerial</td>
<td>5.0 CSU, UC</td>
</tr>
<tr>
<td>BUS 58</td>
<td>Federal Income Tax Law</td>
<td>3.0</td>
</tr>
<tr>
<td>BUS 71</td>
<td>Financial Planning</td>
<td>3.0</td>
</tr>
<tr>
<td>BUS 75</td>
<td>Using Microcomputers in Financial Accounting, or</td>
<td>1.0</td>
</tr>
<tr>
<td>BUS 81</td>
<td>Work Experience in Accounting</td>
<td>1.0</td>
</tr>
<tr>
<td>BUS 76</td>
<td>Using Microcomputers in Managerial Accounting, or</td>
<td>1.0</td>
</tr>
<tr>
<td>BUSO 25</td>
<td>Business Communications</td>
<td>3.0 CSU</td>
</tr>
</tbody>
</table>

**Total Units**: 21.0

**PLUS**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>CISP 81</td>
<td>Work Experience in Accounting</td>
<td>1.0</td>
</tr>
<tr>
<td>CISP 13</td>
<td>Computer Information Systems</td>
<td>3.5 CSU, UC</td>
</tr>
<tr>
<td>CISP 21</td>
<td>Microsoft Windows</td>
<td>2.0 CSU</td>
</tr>
<tr>
<td>CISP 21</td>
<td>Microsoft Excel</td>
<td>4.0</td>
</tr>
<tr>
<td>CSW 11</td>
<td>The Internet</td>
<td>4.0 CSU</td>
</tr>
<tr>
<td>COMP 11</td>
<td>Internet Research for Business</td>
<td>2.0 CSU</td>
</tr>
<tr>
<td>COMP 20</td>
<td>Microsoft Word</td>
<td>4.0</td>
</tr>
</tbody>
</table>

**Total Units**: 18.5 - 19.5

**Accounting – Payroll**

Accounting and Management Department Certificate 60505

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

Requirements for the Certificate

Required courses:
Completion of Accounting – Bookkeeping Certificate as follows:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS 70</td>
<td>Payroll and Tax Accounting</td>
</tr>
<tr>
<td>BUS 75</td>
<td>Using Microcomputers in Financial Accounting, or</td>
</tr>
<tr>
<td>BUS 81</td>
<td>Work Experience in Accounting</td>
</tr>
<tr>
<td>BUSO 25</td>
<td>Business Communications</td>
</tr>
</tbody>
</table>

**Total Units**: 9.0 - 10.0

**PLUS**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS 70</td>
<td>Payroll and Tax Accounting</td>
</tr>
<tr>
<td>BUS 75</td>
<td>Using Microcomputers in Financial Accounting, or</td>
</tr>
<tr>
<td>BUS 81</td>
<td>Work Experience in Accounting</td>
</tr>
<tr>
<td>BUSO 25</td>
<td>Business Communications</td>
</tr>
</tbody>
</table>

**Total Units**: 19.0

**Accounting – Managerial**

Accounting and Management Department Certificate 60533

The Managerial Accounting Certificate provides basic accounting skills and knowledge concentrating in the area of managerial accounting. This prepares students 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.
Administrative Assistant – Level I
Office Technology Department
Certificate 60516

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
- COMP 1 Computer Keyboarding, or 4.0 CSU
- COMP 1A Computer Keyboarding, and 2.0 CSU
- COMP 1B Computer Keyboarding 2.0 CSU
- COMP 12 Office Computer Applications, or 4.0 CSU, UC
- CISB 15 Microcomputer Applications 4.0 CSU, UC
- COMP 28 Office Management Skills 3.0

Total Units 14.0

Administrative Assistant – Level II
Office Technology Department
Certificate 60514

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 Certificate (10.5 - 11 units) as follows:
  - BUSO 5 Business English 3.0
  - COMP 1 Computer Keyboarding, or 4.0 CSU
  - COMP 1A Computer Keyboarding, and 2.0 CSU
  - COMP 1B Computer Keyboarding 2.0 CSU
  - COMP 12 Office Computer Applications, or 4.0 CSU, UC
  - CISB 15 Microcomputer Applications 4.0 CSU, UC
  - COMP 28 Office Management Skills 3.0

Plus the following courses:
- BUSO 25 Business Communications 3.0 CSU
- COMP 2 Intermediate Computer Keyboarding 4.0
- COMP 20 Word for the Business Professional, or 4.0
- COMP 120A Microsoft Word – Level 1, and 1.0
- COMP 120B Microsoft Word – Level 2 1.0
- COMP 68 Transcription Techniques 3.0

Required courses:
- Completion of the Administrative Support – Level II Certificate (18.5 - 21 units) as follows:
  - BUSO 5 Business English 3.0
  - COMP 1 Computer Keyboarding, or 4.0 CSU
  - COMP 1A Computer Keyboarding, and 2.0 CSU
  - COMP 1B Computer Keyboarding 2.0 CSU
  - COMP 12 Office Computer Applications, or 4.0 CSU, UC
  - CISB 15 Microcomputer Applications 4.0 CSU, UC
  - COMP 28 Office Management Skills 3.0

Total Units 37.5

Administrative Assistant – Level III
Office Technology Department
Certificate 60517

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 Support – Level I Certificate (18.5 - 21 units) as follows:
  - BUSO 5 Business English 3.0
  - COMP 1 Computer Keyboarding, or 4.0 CSU
  - COMP 1A Computer Keyboarding, and 2.0 CSU
  - COMP 1B Computer Keyboarding 2.0 CSU
  - COMP 12 Office Computer Applications, or 4.0 CSU, UC
  - CISB 15 Microcomputer Applications 4.0 CSU, UC
  - COMP 28 Office Management Skills 3.0

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

Total Units 41.5 - 46.5

Air Conditioning and Refrigeration
Air Conditioning, Water & Welding Technologies
Certificate 60909

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 in Air Conditioning and Refrigeration 2.0
- AIRC 11 Welding for Air Conditioning and Refrigeration 2.0
- AIRC 12 Air Conditioning Codes and Standards 3.0
- AIRC 20 Refrigeration Fundamentals 3.0
- AIRC 25 Electrical Fundamentals for Air Conditioning and Refrigeration 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 for Air Conditioning and Refrigeration 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 41.5 - 46.5

Aircraft Powerplant Maintenance Technology – Day
Aircraft Maintenance Technology & Manufacturing Department
Certificate 60912

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 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 Maintenance Technology 12.0 CSU
- AIRM 65B Aircraft Powerplant Maintenance Technology 12.0
- AIRM 70A Aircraft Maintenance Technology – Day 3.0
- AIRM 70B Aircraft Maintenance Technology – Evening 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 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

Aircraft Powerplant Maintenance Technology – Evening
Aircraft Maintenance Technology & Manufacturing Department
Certificate 60952

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

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AIRM 70A</td>
<td>Aircraft Maintenance Electricity and Electronics</td>
<td>3.0</td>
</tr>
<tr>
<td>AIRM 70B</td>
<td>Aircraft Maintenance Electricity and Electronics</td>
<td>3.0</td>
</tr>
<tr>
<td>AIRM 71</td>
<td>Aviation Maintenance Science</td>
<td>6.0</td>
</tr>
<tr>
<td>AIRM 72</td>
<td>Aviation Materials and Processes</td>
<td>1.5</td>
</tr>
<tr>
<td>AIRM 73</td>
<td>Aviation Welding</td>
<td>1.5</td>
</tr>
<tr>
<td>AIRM 95A</td>
<td>Aircraft Powerplant Maintenance Technology</td>
<td>3.0</td>
</tr>
<tr>
<td>AIRM 95B</td>
<td>Aircraft Powerplant Maintenance Technology</td>
<td>3.0</td>
</tr>
<tr>
<td>AIRM 96A</td>
<td>Aircraft Powerplant Maintenance Technology</td>
<td>3.0</td>
</tr>
<tr>
<td>AIRM 96B</td>
<td>Aircraft Powerplant Maintenance Technology</td>
<td>3.0</td>
</tr>
<tr>
<td>AIRM 97A</td>
<td>Aircraft Powerplant Maintenance Technology</td>
<td>3.0</td>
</tr>
<tr>
<td>AIRM 97B</td>
<td>Aircraft Powerplant Maintenance Technology</td>
<td>3.0</td>
</tr>
<tr>
<td>AIRM 98A</td>
<td>Aircraft Powerplant Maintenance Technology</td>
<td>3.0</td>
</tr>
<tr>
<td>AIRM 98B</td>
<td>Aircraft Powerplant Maintenance Technology</td>
<td>3.0</td>
</tr>
<tr>
<td><strong>Total Units</strong></td>
<td></td>
<td><strong>39.0</strong></td>
</tr>
</tbody>
</table>

Programs of Study Leading to a Certificate

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AIRM 74</td>
<td>Aircraft Maintenance Technology — Work Experience</td>
<td></td>
</tr>
<tr>
<td>AIRM 80</td>
<td>Lab Studies in Aircraft Maintenance Technology</td>
<td></td>
</tr>
<tr>
<td>AIRM 81</td>
<td>Lab Studies in Aircraft Maintenance Technology</td>
<td></td>
</tr>
<tr>
<td>ELEC 90</td>
<td>Survey of Electronics</td>
<td></td>
</tr>
<tr>
<td>MFG 70</td>
<td>Technical Mathematics — Manufacturing Applications</td>
<td></td>
</tr>
<tr>
<td>PHYS 1</td>
<td>Physics</td>
<td></td>
</tr>
</tbody>
</table>

**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
- ELEC 90: Survey of Electronics
- MFG 70: Technical Mathematics — Manufacturing Applications
- PHYS 1: Physics

**Airframe Maintenance Technology — Day**

Airframe Maintenance Technology & Manufacturing Department Certificate 60911

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**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AIRM 66A</td>
<td>Airframe Maintenance Technology</td>
<td>12.0</td>
</tr>
<tr>
<td>AIRM 66B</td>
<td>Airframe Maintenance Technology</td>
<td>12.0</td>
</tr>
<tr>
<td>AIRM 70A</td>
<td>Aircraft Maintenance Electricity and Electronics</td>
<td>3.0</td>
</tr>
<tr>
<td>AIRM 70B</td>
<td>Aircraft Maintenance Technology</td>
<td>3.0</td>
</tr>
<tr>
<td>AIRM 71</td>
<td>Aviation Maintenance Science</td>
<td>6.0</td>
</tr>
<tr>
<td>AIRM 72</td>
<td>Aviation Materials and Processes</td>
<td>1.5</td>
</tr>
<tr>
<td>AIRM 73</td>
<td>Aviation Welding</td>
<td>1.5</td>
</tr>
<tr>
<td><strong>Total Units</strong></td>
<td></td>
<td><strong>39.0</strong></td>
</tr>
</tbody>
</table>

**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
- ELEC 90: Survey of Electronics
- MFG 70: Technical Mathematics — Manufacturing Applications
- PHYS 1: Physics

**Airframe Maintenance Technology — Evening**

Airframe Maintenance Technology & Manufacturing Department Certificate 60951

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**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AIRM 66A</td>
<td>Airframe Maintenance Technology</td>
<td>12.0</td>
</tr>
<tr>
<td>AIRM 66B</td>
<td>Airframe Maintenance Technology</td>
<td>12.0</td>
</tr>
<tr>
<td>AIRM 70A</td>
<td>Aircraft Maintenance Technology</td>
<td>3.0</td>
</tr>
<tr>
<td>AIRM 70B</td>
<td>Aircraft Maintenance Technology</td>
<td>3.0</td>
</tr>
<tr>
<td>AIRM 71</td>
<td>Aviation Maintenance Science</td>
<td>6.0</td>
</tr>
<tr>
<td>AIRM 72</td>
<td>Aviation Materials and Processes</td>
<td>1.5</td>
</tr>
<tr>
<td>AIRM 73</td>
<td>Aviation Welding</td>
<td>1.5</td>
</tr>
<tr>
<td><strong>Total Units</strong></td>
<td></td>
<td><strong>39.0</strong></td>
</tr>
</tbody>
</table>

**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
- ELEC 90: Survey of Electronics
- MFG 70: Technical Mathematics — Manufacturing Applications
- PHYS 1: Physics

**Alcohol/Drug Counseling**

Public Services Department Certificate 62101

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

### Requirements for the Certificate

#### Required core courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Units</th>
<th>Transferability</th>
</tr>
</thead>
<tbody>
<tr>
<td>AD 1</td>
<td>Alcohol/Drug Dependency</td>
<td>3.0</td>
<td>CSU</td>
</tr>
<tr>
<td>AD 2</td>
<td>Physiological Effects of Alcohol/Drugs</td>
<td>3.0</td>
<td>CSU</td>
</tr>
<tr>
<td>AD 3</td>
<td>Chemical Dependency: Intervention, Treatment and Recovery</td>
<td>3.0</td>
<td>CSU</td>
</tr>
<tr>
<td>AD 4</td>
<td>Issues in Domestic Violence</td>
<td>3.0</td>
<td></td>
</tr>
<tr>
<td>AD 5</td>
<td>Chemical Dependency: Prevention and Education</td>
<td>1.5</td>
<td>CSU</td>
</tr>
<tr>
<td>AD 6</td>
<td>Dual Diagnosis</td>
<td>3.0</td>
<td>CSU</td>
</tr>
</tbody>
</table>

#### Required skill courses:

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

#### Required field work courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Units</th>
<th>Transferability</th>
</tr>
</thead>
<tbody>
<tr>
<td>AD 13</td>
<td>Internship/Seminar</td>
<td>3.5</td>
<td>CSU</td>
</tr>
<tr>
<td>AD 14</td>
<td>Advanced Internship/Seminar</td>
<td>3.5</td>
<td>CSU</td>
</tr>
</tbody>
</table>

PLUS

Select two (2) courses from:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Units</th>
<th>Transferability</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHLD 10</td>
<td>Child Growth and Development, or</td>
<td>3.0</td>
<td>CSU, UC</td>
</tr>
<tr>
<td>CHLD 10H</td>
<td>Child Growth and Development – Honors, or</td>
<td>3.0</td>
<td>CSU, UC</td>
</tr>
<tr>
<td>PSYC 1A</td>
<td>General Psychology</td>
<td>3.0</td>
<td>CSU</td>
</tr>
<tr>
<td>PSYC 19</td>
<td>Abnormal Psychology</td>
<td>3.0</td>
<td>CSU</td>
</tr>
<tr>
<td>SOC 11</td>
<td>Sociology</td>
<td>3.0</td>
<td>CSU</td>
</tr>
<tr>
<td>SOC 14</td>
<td>Marriage and the Family</td>
<td>3.0</td>
<td>CSU, UC</td>
</tr>
<tr>
<td>SOC 15</td>
<td>Child Development</td>
<td>3.0</td>
<td>CSU</td>
</tr>
</tbody>
</table>

#### 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.

### Animation – Digital 2-Dimensional

#### Art Department

**Certificate 61011**

The Digital 2-D Certificate provides training for creative careers that integrate animation with video, audio, graphics and special effects for Websites, broadcast, film, presentation or mobile content.

The Animation Program offers an integrated/interdisciplinary approach to prepare students to meet current and future job market demands. The student will be given a balanced blend of art and technology-based skills which are essential for today's careers in animation.

The program offers an A.S. Degree and two certificates.

#### Required courses:

<table>
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<th>Units</th>
<th>Transferability</th>
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<tr>
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<td>ANIM 104</td>
<td>Drawing Fundamentals</td>
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<td>ANIM 108</td>
<td>Principles of Animation</td>
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<td>CSU</td>
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<tr>
<td>ANIM 111</td>
<td>Storyboarding</td>
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<td>ANIM 116</td>
<td>Character Development</td>
<td>1.5</td>
<td></td>
</tr>
<tr>
<td>ANIM 119</td>
<td>Portfolio, or</td>
<td>1.5</td>
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<tr>
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<td>Portfolio</td>
<td>3.0</td>
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<td>Script Development for Animation</td>
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<td>Motion Graphics with After Effects</td>
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<td>ANIM 175</td>
<td>Web Animation with Flash</td>
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<td>Drawing: Life</td>
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**Total Units:** 33.0 - 34.5

#### Recommended Electives:

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<tr>
<td>ANIM 130</td>
<td>Introduction to 3-D Computer Animation</td>
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<tr>
<td>ANIM 137A</td>
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<td>Work Experience in New Digital Media, or</td>
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<tr>
<td>ANIM 148</td>
<td>Demo-Reel</td>
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<tr>
<td>ARTD 16</td>
<td>Drawing: Perspective</td>
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<td>ARTD 20</td>
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<tr>
<td>PHOT 10</td>
<td>Beginning Photography</td>
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</table>

**Total Units:** 39.0

### Animation – Digital 3-Dimensional

#### Art Department

**Certificate 61012**

The Digital 3-D Certificate provides training in 3-D animation including character modeling, lighting, texture, environment and special effects that lead to creative careers in film, television and the video game industry.

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 two Certificates.

#### Required courses:

<table>
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<th>Course Code</th>
<th>Course Name</th>
<th>Units</th>
<th>Transferability</th>
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<tbody>
<tr>
<td>ANIM 101</td>
<td>Drawing – Gesture and Figure</td>
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<td>ANIM 104</td>
<td>Drawing Fundamentals</td>
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<td>Principles of Animation</td>
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<td>CSU</td>
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<td>Storyboarding</td>
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<td>ANIM 116</td>
<td>Character Development</td>
<td>1.5</td>
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<tr>
<td>ANIM 130</td>
<td>Introduction to 3-D Computer Animation</td>
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<tr>
<td>ANIM 132</td>
<td>Modeling, Texture Mapping and Lighting</td>
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<tr>
<td>ANIM 134</td>
<td>Visual Effects I: Dynamics</td>
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<td>Visual Effects II: Particle Systems</td>
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<td>Advanced 3-D Modeling</td>
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<td>ANIM 148</td>
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<td>ARTC 70</td>
<td>Computer Graphics: Introduction</td>
<td>3.0</td>
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<tr>
<td>ARTD 17A</td>
<td>Drawing: Life</td>
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**Total Units:** 39.0

#### Recommended Electives:

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<th>Course Name</th>
<th>Units</th>
<th>Transferability</th>
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<tr>
<td>ANIM 107</td>
<td>Figure in Motion</td>
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<td>Advanced Principles of Animation</td>
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<td>ANIM 119</td>
<td>Portfolio, or</td>
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<td>ARTC 66</td>
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<td>ANIM 120</td>
<td>Script Development for Animation</td>
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<tr>
<td>ANIM 137A</td>
<td>Work Experience in New Digital Media, or</td>
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<tr>
<td>ANIM 137C</td>
<td>Work Experience in New Digital Media</td>
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**Total Units:** 39.0 - 40.5

### Animation – Traditional

#### Art Department

**Certificate 61010**

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

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Units</th>
<th>Transferability</th>
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<tbody>
<tr>
<td>ARTD 17A</td>
<td>Drawing: Life</td>
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<td>ARTD 20</td>
<td>Drawing: Perspective</td>
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**Total Units:** 39.0 - 40.5
Architectural Technology – Level I
Architecture and Engineering Design Department Certificate 60201

This multi-level certificate program is intended to prepare 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. The student will be required to develop both design and working drawing portfolios. Current technology and computer (CADD) skills are integrated into the program. An A.S. Degree program is also available.

### Requirements for the Certificate

**Required courses:**

<table>
<thead>
<tr>
<th>Course Code</th>
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<tr>
<td>ENGL 1A</td>
<td>Freshman Composition, or</td>
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<td>ENGL 1A</td>
<td>Freshman Composition, or</td>
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<tr>
<td>ENGL 1C</td>
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<td>PHIL 12</td>
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<td>3.0</td>
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<td>PSYC 1AH</td>
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<tr>
<td>PSYC 33</td>
<td>Psychology for Effective Living</td>
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**Total Units:** 31.0

### Architectural Technology – Level II
Architecture and Engineering Design Department Certificate 60203

This multi-level certificate program is intended to prepare 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. The student will be required to develop both design and working drawing portfolios. Current technology and computer (CADD) skills are integrated into the program. An A.S. Degree program is also available.
## Programs of Study Leading to a Certificate

### Architectural Technology – Level III

Architecture and Engineering Design Department Certificate 60204

This multi-level certificate program is intended to prepare 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. The student will be required to develop both design and working drawing portfolios. Current technology and computer (CADD) skills are integrated into the program. An A.S. Degree program is also available.

### Requirements for the Certificate

Completion of the Architectural Technology: Level I and Level II Certificates (46 units).

#### Required courses:

**Level I** as follows:

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<th>Units</th>
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<td>ARCH 11 Architectural Drawing</td>
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<td>ARCH 12 Architectural Materials and Specifications</td>
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<td>CSU, UC</td>
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<tr>
<td>ARCH 13 Architectural Illustration</td>
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<tr>
<td>ARCH 14 Building and Zoning Codes</td>
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<td>ARCH 15 Architectural Working Drawings – I</td>
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<td>ARCH 16 Basic CAD and Computer Application</td>
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**Level II** as follows:

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<th>Units</th>
<th>CSU, UC</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARCH 21 Design II – Architectural Design</td>
<td>3.0</td>
<td>CSU</td>
</tr>
<tr>
<td>ARCH 23 Architectural Presentations</td>
<td>3.0</td>
<td>CSU</td>
</tr>
<tr>
<td>ARCH 26 Architectural CAD Working Drawings</td>
<td>3.0</td>
<td></td>
</tr>
<tr>
<td>ART 20 Technical Descriptive Geometry</td>
<td>3.0</td>
<td>CSU</td>
</tr>
</tbody>
</table>

Plus select six (6) units from General Education Restricted list.

**Level III** as follows:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
<th>CSU, UC</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARCH 27 Design III – Environmental Design</td>
<td>3.0</td>
<td>CSU, UC</td>
</tr>
<tr>
<td>ARCH 28 Architectural CAD</td>
<td>3.0</td>
<td>CSU</td>
</tr>
<tr>
<td>BUS 1A Principles of Economics – Microeconomics</td>
<td>3.0</td>
<td>CSU</td>
</tr>
<tr>
<td>BUS 1AH Principles of Economics – Macroeconomics</td>
<td>3.0</td>
<td>CSU</td>
</tr>
<tr>
<td>ENGL 1A Freshman Composition, or</td>
<td>3.0</td>
<td>CSU</td>
</tr>
<tr>
<td>ENGL 1AH Freshman Composition – Honors</td>
<td>3.0</td>
<td>CSU</td>
</tr>
<tr>
<td>ENGL 1B English – Introduction to Literary Types, or</td>
<td>3.0</td>
<td>CSU</td>
</tr>
<tr>
<td>ENGL 1BH English – Introduction to Literary Types – Honors</td>
<td>3.0</td>
<td>CSU, UC</td>
</tr>
<tr>
<td>ENGL 1C Critical Thinking and Writing, or</td>
<td>3.0</td>
<td>CSU</td>
</tr>
<tr>
<td>ENGL 1CH Critical Thinking and Writing – Honors</td>
<td>3.0</td>
<td>CSU</td>
</tr>
<tr>
<td>FCS 41 Life Management</td>
<td>3.0</td>
<td>CSU</td>
</tr>
<tr>
<td>HIST 3 History of World Civilization</td>
<td>3.0</td>
<td>CSU, UC</td>
</tr>
<tr>
<td>MATH 51 Elementary Algebra</td>
<td>4.0</td>
<td></td>
</tr>
<tr>
<td>MATH 71 Intermediate Algebra</td>
<td>5.0</td>
<td></td>
</tr>
<tr>
<td>MATH 150 Trigonometry</td>
<td>3.0</td>
<td>CSU</td>
</tr>
</tbody>
</table>

**PLUS**

Select six (6) units from General Education Restricted list.

**Option**

**Total Units 52.0**

### Art: Aesthetics for Technology

Art Department Certificate 61013

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 Office Technology 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:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARTC 161 Graphic Design: Layout</td>
<td>3.0</td>
</tr>
<tr>
<td>ARTC 165 Illustration</td>
<td>3.0</td>
</tr>
<tr>
<td>ARTD 15A Drawing: Beginning</td>
<td>3.0</td>
</tr>
<tr>
<td>ARTD 25A Painting: Beginning</td>
<td>3.0</td>
</tr>
</tbody>
</table>

**Total Units 12.0**

### Business: Human Resource Management – Level I

Accounting and Management Department Certificate 60531

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:**

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

**Total Units 9.0**

### Athletic Trainer Aide I

Physical Education Department Certificate 60802

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:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>PE 3 First Aid and CPR</td>
<td>3.0</td>
</tr>
<tr>
<td>PE 5 Advanced First Aid/CPR/ Emergency Response</td>
<td>3.0</td>
</tr>
<tr>
<td>PE 19 Introduction to Care/ Prevention of Activity/ Sports-Related Injuries</td>
<td>3.0</td>
</tr>
<tr>
<td>PE 34 Fitness for Living</td>
<td>3.0</td>
</tr>
<tr>
<td>PE 92 Work Experience – Athletic Training</td>
<td>2.0</td>
</tr>
</tbody>
</table>

**Total Units 11.0**

### Special Information:

Students receiving financial aid need to declare the Level III Certificate as their goal to meet Financial Aid requirements.
Accounting and Management Department Certificate 60534

This certificate builds upon the Level I Certificate to provide students with specific knowledge of human resource management functions, HR law, compensation systems, and an understanding of human motivation and organizational behavior. Successful completion of this certificate provides students with a solid foundation from which to build a career in human resources.

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 the following courses:
- BUSA 70 Payroll and Tax Accounting 3.0
- CISB 15 Microcomputer Applications 4.0 CSU, UC

Total Units 25.0

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

Business: International – Level II
Accounting and Management Department Certificate 60535

Students completing the Level II Certificate will have knowledge and practical experience in international business, including international business law, management of multinationals, and international marketing. This program prepares students for entry-level employment in international sales and marketing.

Requirements for the Certificate
Completion of Human Resource Management – Level I and Level II Certificate (18 Units) as follows:

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

Level II as follows:
- ANTH 22 General Cultural Anthropology 3.0 CSU, UC
- BUSM 60 Human Relations in Business 3.0 CSU
- BUSO 25A Business Communications, or 3.0 CSU
- BUSO 25B Business Communications B 1.5 CSU

Total Units 18.0

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

Business: International – Level III
Accounting and Management Department Certificate 60536

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

Required courses:
Level I as follows:
- BUSM 20 Principles of Business 3.0 CSU, UC
- BUSM 50 Principles of International Business 3.0

Level II as follows:
- BUSM 50 Principles of International Business 3.0
- BUSM 61 Business Organization and Management 3.0
- BUSM 66 Small Business Management 3.0

PLUS Select one (1) course from:
- BUSA 70 Payroll and Tax Accounting 3.0
- CISB 15 Microcomputer Applications 4.0 CSU, UC

Total Units 18.0 - 19.0

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

Business: International – Level III
Accounting and Management Department Certificate 60552B

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.

Requirements for the Certificate
Completion of the Business: International – Level I and II Certificates (18 Units) as follows:

Required courses:
- BUSM 20 Principles of Business 3.0 CSU, UC
- BUSM 50 Principles of International Business 3.0
- BUSM 61 Business Organization and Management 3.0 CSU
- BUSM 66 Small Business Management 3.0

PLUS Select one (1) course from:
- BUSA 70 Payroll and Tax Accounting 3.0
- CISB 15 Microcomputer Applications 4.0 CSU, UC

Total Units 27.0 - 28.0
Programs of Study Leading to a Certificate

Recommended Electives:
- BUSM 81 Work Experience in Business, or
- BUSM 82 Work Experience in Business, or
- BUSM 83 Work Experience in Business, or
- BUSM 84 Work Experience in Business, or
- BUSM 85 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 I
Accounting and Management Department Certificate 60525

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
- BUSS 36 Principles of Marketing 3.0 CSU

Total Units 9.0

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

Business: Management – Level II
Accounting and Management Department Certificate 60506

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

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

Total Units 9.0

Requirements for the Certificate
Completion of the Business: Management Level I Certificate and Level II Certificates (18.5 Units) as follows:

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

Total Units 19.0

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

Business: Management – Level III
Accounting and Management Department Certificate 60526

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

Requirements for the Certificate
Completion of the Business: Management – Level I and Level II Certificates (18.5 Units) as follows:

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

Total Units 19.0

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 60500

This introductory certificate exposes students to the business world and the role of retail distribution. Students become familiar with careers in retail management, as well as the latest trends in this fast changing field. This certificate may aid the student’s search for an entry-level job in retail management.

Requirements for the Certificate
Required courses:
- BUSO 25 Business Communications 3.0 CSU
- BUSS 15 Microcomputer Applications 4.0 CSU, UC
- FASH 62 Retail Store Management and Merchandising, or
- BUSO 25 Retail Store Management and Merchandising 3.0 CSU, UC

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: Retail Management – Level II
Accounting and Management Department Certificate 60501

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
Completion of the Retail Management – Level I Certificate (9.5 Units) as follows:

Required courses:
- BUSO 25 Business Communications 3.0 CSU
- BUSS 50 Retail Store Management and Merchandising, or
- FASH 62 Retail Store Management and Merchandising 3.0 CSU, UC
- 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: Retail Management – Level III
Accounting and Management Department Certificate 60521

Students completing the advanced Level III Certificate will have knowledge and practical experience in business communication, leadership and financial controls. Successful completion of this certificate prepares students to handle the increasing diversity and complexity of modern retail management.

Requirements for the Certificate
Completion of the Retail Management – Level I certificate (9.5 Units) as follows:

Required courses:
- BUSO 25 Business Communications 3.0 CSU
- BUSS 50 Retail Store Management and Merchandising, or
- FASH 62 Retail Store Management and Merchandising 3.0 CSU, UC
- CISB 15 Microcomputer Applications 4.0 CSU, UC

Total Units 22.0

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

2007-08 Mt. San Antonio College Catalog
Programs of Study Leading to a Certificate

**Business: Small Business Management – Level II**
Accounting and Management Department Certificate 60508

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**
Completion of Business: Small Business Management – Level I Certificate (9 Units) as follows:

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

**Total Units** 18.0

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

**Business: Small Business Management – Level III**
Accounting and Management Department Certificate 60530

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

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

**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: Workplace Competencies**
Business Administration Department Certificate 60532

This certificate program is designed for the student thinking about joining the professional workforce or seeking current job advancement. It covers the most often listed requirements for employment and job advancement including professional communication, appearance and life management.

**Requirements for the Certificate**
Completion of Business: Workplace Competencies Level I and II Certificates as follows:

- BUSA 7 Principles of Accounting – Financial 5.0 CSU, UC  
- BUSM 10 Principles of Continuous Quality Improvement 3.0  
- BUSO 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.

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**Children's Program Certificate: Administration**
Child Development Department Certificate 61313

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

**Requirements for the Certificate**
Completion of the Children's Program Certificate: General as follows:

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

**PLUS**
Select three (3) courses from:

- CHLD 61 Language Arts & Art Media for Young Children 3.0  
- CHLD 62 Music and Motor Development for Young Children 3.0 CSU  
- CHLD 63 Creative Science and Math for Young Children 3.0  
- CHLD 73 Infant/Toddler Care and Development 3.0 CSU
## Children's Program Certificate: General – Level II
### Child Development Department Certificate 61328

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

**Requirements for the Certificate**

**Required courses:**
- Child, Family, and Community: 3.0 CSU (General Education)
- Principles/Practices in Child Development Programs: 3.0 CSU
- Survey of Child Development Curriculum: 3.0 CSU
- Child Growth and Development: 3.0 CSU, UC
- Child Growth and Development – Honors: 3.0 CSU, UC

**Plus the following courses:**
- Health, Safety, and Nutrition of Young Children: 3.0 CSU
- Children with Special Needs: 3.0 CSU
- Guidance & Discipline in Early Childhood Settings: 1.0

**Recommended Electives:**
- Multicultural Education: Anti-Bias Perspective: 3.0
- Language Arts & Media for Young Children: 3.0
- Music and Motor Development for Young Children: 3.0
- Creative and Math for Young Children: 3.0
- Infant/Toddler Care and Development: 3.0 CSU

**Total Units:** 19.0

### Children's Program Certificate: Teaching
### Child Development Department Certificate 61312

The Children's Program Certificate: Teaching Specialization is designed for the teacher who desires a Title 22 education requirements for fully qualified teachers.

**Requirements for the Certificate**

**Required courses:**
- Human Relations in Business: 3.0 CSU
- Small Business Management: 3.0
- Business English: 3.0
- Child, Family and Community: 3.0 CSU, UC
- Principles/Practices in Child Development Programs: 3.0
- Survey of Child Development Curriculum: 3.0
- Child Growth and Development: 3.0 CSU, UC
- Child Growth and Development – Honors: 3.0 CSU, UC
- Health, Safety, and Nutrition of Young Children: 3.0
- Children with Special Needs: 3.0 CSU
- Guidance & Discipline in Early Childhood Settings: 1.0

**Total Units:** 28.0

### Children's Program Certificate: Small Business Management
### Child Development Department Certificate 61311

The Children's Programs Small Business Management Certificate provides information for operating or owning a preschool.

**Requirements for the Certificate**

**Required courses:**
- Human Relations in Business: 3.0 CSU
- Small Business Management: 3.0
- Business English: 3.0
- Child, Family and Community: 3.0 CSU, UC
- Principles/Practices in Child Development Programs: 3.0
- Survey of Child Development Curriculum: 3.0
- Child Growth and Development: 3.0 CSU, UC
- Child Growth and Development – Honors: 3.0 CSU, UC
- Health, Safety, and Nutrition of Young Children: 3.0
- Children with Special Needs: 3.0 CSU
- Guidance & Discipline in Early Childhood Settings: 1.0

**Total Units:** 33.0

**Recommended Electives:**
- Human Relations in Business: 3.0 CSU
- Small Business Management: 3.0
- Business English: 3.0
- Child, Family and Community: 3.0 CSU, UC
- Principles/Practices in Child Development Programs: 3.0
- Survey of Child Development Curriculum: 3.0
- Child Growth and Development: 3.0 CSU, UC
- Child Growth and Development – Honors: 3.0 CSU, UC
- Health, Safety, and Nutrition of Young Children: 3.0
- Children with Special Needs: 3.0 CSU
- Guidance & Discipline in Early Childhood Settings: 1.0
**CIS Professional Certificate in C++ Programming**

**Computer Information Systems Department Certificate 60714**

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

**Requirements for the Certificate**

- **CISP 31** Programming in C++ 4.0 CSU, UC
- **CISP 34** Advanced C++ Programming 4.0 CSU, UC

**Total Units 8.0**

**CIS Professional Certificate in Database Management – Microcomputers**

**Computer Information Systems Department Certificate 60715**

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

**Requirements for the Certificate**

- **CISD 11** Database Management – Microcomputers 4.0 CSU
- **CISD 14** Advanced Database Management – Microcomputers 4.0
- **CISD 40** Database Design 2.0

**Total Units 10.0**

**CIS Professional Certificate in Java Programming**

**Computer Information Systems Department Certificate 60700**

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**

- **CISP 21** Programming in Java, or 4.0 CSU, UC
- **CISP 24** Advanced Java Programming 4.0

**Total Units 12.0**

**CIS Professional Certificate in Network Security**

**Computer Information Systems Department Certificate 60721**

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 attacks. The courses examine Firewall and VPN in various environments and platforms, use network protocol analyzing technology, and aim to help students develop skills to design, administer, and troubleshoot network problems. Individual courses may assist students in preparing for related industry certification exams.

**Requirements for the Certificate**

- **CISN 21** Network Vulnerabilities and Countermeasures 4.0 CSU
- **CISN 23** Network Analysis and NIDS 4.0 CSU
- **CISN 25** Network Security and Firewalls 4.0 CSU

**Total Units 12.0**

**CIS Professional Certificate in Object-Oriented Design & Programming**

**Computer Information Systems Department Certificate 60723**

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**

- **CISP 11** Basic Programming, or 4.0 CSU, UC
- **CISP 31** Programming in C++, or 4.0 CSU, UC
- **CISP 21** Programming in Java, or 4.0 CSU, UC
- **CISP 41** Programming in C# 4.0

**Total Units 16.0**
CIS Professional Certificate in Oracle
Computer Information Systems Department Certificate 60717
This curriculum is designed for returning CIS professionals with several years of experience or current students who have completed several CIS courses. This program will prepare the student to install, create, manage, administer, and troubleshoot an Oracle database. The program covers the major topics of an industry standard certification exam for Oracle.

Requirements for the Certificate
Required courses:
CISD 31 Database Management 4.0
CISD 32 Oracle Forms and Reports 4.0
CISD 33 Oracle Database Architecture and Administration, or
CISD 50 Web Based Applications with PL/SQL, or
CISD 34 High Performance Oracle 2.0
CISD 40 Database Design 2.0
Total Units 12.0 - 14.0

CIS Professional Certificate in SQL
Computer Information Systems Department Certificate 60730
This certificate is designed for returning CIS professionals with several years of experience or current students who have completed several CIS courses. This program will prepare the student to view and update databases, create and maintain database objects, and develop programs to automate database functions.

Requirements for the Certificate
Required courses:
CISD 21 SQL Server 4.0
CISD 31 Database Management 4.0
CISD 40 Database Design 2.0
Total Units 10.0

CIS Professional Certificate in Visual Basic Programming
Computer Information Systems Department Certificate 60719
This curriculum is designed for returning CIS professionals with several years of experience or current students who have completed several CIS courses. This program will prepare the student to develop programming skills needed to create effective Web pages and websites using various scripting or markup languages like JavaScript, VBScript, HTML, DHTML, and XML. Includes practical knowledge of how to install, manage, and troubleshoot Web servers and access information from a database server. Helps students in obtaining programming jobs with companies with a Web presence.

Requirements for the Certificate
Required courses:
CISW 11 Basic Programming 4.0  CSU, UC
CISW 14 Advanced Basic Programming 4.0  CSU, UC
Total Units 8.0

CIS Professional Certificate in Web Programming
Computer Information Systems Department Certificate 60713
This curriculum is designed for returning CIS professionals with several years of experience or current students who have completed several CIS courses. This program will prepare the student to develop programming skills needed to create effective Web pages and websites using various scripting or markup languages like JavaScript, VBScript, HTML, DHTML, and XML. Includes practical knowledge of how to install, manage, and troubleshoot Web servers and access information from a database server. Helps students in obtaining programming jobs with companies with a Web presence.

Requirements for the Certificate
Required courses:
CISW 11 The Internet 4.0  CSU
CISW 24 Advanced Web Programming 4.0
CISW 31 Web Servers 4.0
Total Units 12.0

CIS Professional Certificate in Windows Operating System Administration
Computer Information Systems Department Certificate 60720
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:
CISW 21 Windows Operating System 4.0  CSU
CISW 24 Microsoft NT Network System Administration 4.0
Total Units 8.0

Coaching
Physical Education Department Certificate 60804
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

Computer and Networking Technology – Level I
Electronics and Computer Technology Department Certificate 60725
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 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 as industry benchmarks for the computer and networking technician. Further, the student will develop the requisite skills upon which to build in order to seek additional certification.
### Computer and Networking Technology – Level II

**Electronics and Computer Technology Department Certificate 60726**

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 will be prepared to take the A+, Network+, Server+, and Security+ certification tests offered at testing centers throughout the country. These certifications are industry benchmarks for the 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**

**Required courses:**
- CNET 50: PC Servicing 4.0
- CNET 52: PC Operating Systems 4.0
- CNET 54: PC Troubleshooting 4.0
- CNET 60: A+ Certification Preparation 3.0

**Plus the following courses:**
- ELEC 11: Technical Applications in Microcomputers, or 3.0 CSU
- CISB 15: Microcomputer Applications 4.0 CSU, UC
- ELEC 50A: Electronics Theory 2.0 CSU
- ELEC 50AL: Electronics Laboratory 1.0 CSU
- ELEC 50B: Electronics Theory 2.0 CSU
- ELEC 50BL: Electronics Laboratory 1.0 CSU
- ELEC 56: Digital Electronics 3.0 CSU
- ELEC 56L: Digital Electronics Laboratory 1.0 CSU

**Total Units:** 28.0 - 29.0

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### Construction Inspection

**Architecture and Engineering Design Department Certificate 60920**

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
- 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
- MATH 51: Elementary Algebra 4.0

**Total Units:** 22.0

---

### Computer Systems Technology

**Electronics and Computer Technology Department Certificate 60924**

This curriculum is one of three advanced systems options 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, or 3.0 CSU
- ELEC 50A: Electronics Theory 2.0 CSU
- ELEC 50AL: Electronics Laboratory 1.0 CSU
- ELEC 50B: Electronics Theory 2.0 CSU
- ELEC 50BL: Electronics Laboratory 1.0 CSU
- ELEC 56: Digital Electronics 3.0 CSU
- ELEC 56L: Digital Electronics Laboratory 1.0 CSU
- ELEC 11: Technical Applications in Microcomputers, or 3.0 CSU
- CISB 15: Microcomputer Applications 4.0 CSU, UC
- ELEC 50A: Electronics Theory 2.0 CSU
- ELEC 50AL: Electronics Laboratory 1.0 CSU
- ELEC 50B: Electronics Theory 2.0 CSU
- ELEC 50BL: Electronics Laboratory 1.0 CSU
- ELEC 56: Digital Electronics 3.0 CSU
- ELEC 56L: Digital Electronics Laboratory 1.0 CSU

**Total Units:** 24.0

**Recommended Electives:**
- AHS 1: Understanding the Visual Arts, or 3.0 CSU
- ARTB 1: Understanding the Visual Arts 3.0
- COMP 10: Operating the Macintosh Computer 3.0
- GRAP 10: Advanced Image Design – 3D Modeling Techniques 3.0
- GRAP 25: Work Experience in Computer Graphics 3.0
- TECH 60: Customer Relations for the Technician 1.0

**Total Units:** 42.0 - 43.0

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### Computer Graphic Design/Photography

**Photographics Department Certificate 61005**

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:**
- ELEC 11: Technical Applications in Microcomputers, or 3.0 CSU
- ELEC 50A: Electronics Theory 2.0 CSU
- ELEC 50AL: Electronics Laboratory 1.0 CSU
- ELEC 50B: Electronics Theory 2.0 CSU
- ELEC 50BL: Electronics Laboratory 1.0 CSU
- ELEC 55: Digital Electronics 3.0 CSU
- ELEC 60: Digital Electronics Laboratory 1.0 CSU
- TECH 60: Customer Relations for the Technician 1.0

**Total Units:** 22.0

---

### Construction Inspection

**Architecture and Engineering Design Department Certificate 60920**

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.
**Programs of Study Leading to a Certificate**

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

**Correctional Sciences**

**Public Services Department**

**Certificate 62103**

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

**Requirements for the Certificate**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
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<tbody>
<tr>
<td>ADJU 68</td>
<td>3.0 CSU, UC</td>
</tr>
<tr>
<td>CORS 10</td>
<td>3.0 CSU</td>
</tr>
<tr>
<td>CORS 15</td>
<td>3.0</td>
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<tr>
<td>CORS 20</td>
<td>3.0</td>
</tr>
<tr>
<td>CORS 25</td>
<td>3.0</td>
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<tr>
<td>CORS 30</td>
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<tr>
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<td>ADJU 38</td>
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<td></td>
<td>CORS 45</td>
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<tr>
<td></td>
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</tr>
</tbody>
</table>

**Data Entry**

**Office Technology Department**

**Certificate 60701**

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

**Requirements for the Certificate**

<table>
<thead>
<tr>
<th>Course</th>
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<tbody>
<tr>
<td>COMP 2</td>
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<tr>
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<td>Total</td>
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</tr>
</tbody>
</table>

**Desktop Publishing**

**Office Technology Department**

**Certificate 60711**

This program will afford career opportunities in businesses desiring desktop publishing skills or in starting your own business.

**Requirements for the Certificate**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMP 1A</td>
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<tr>
<td>COMP 1</td>
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<tr>
<td>COMP 11</td>
<td>2.0 CSU</td>
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<tr>
<td>COMP 60</td>
<td>4.0 CSU</td>
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<tr>
<td>COMP 62</td>
<td>4.0</td>
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<tr>
<td>COMP 63</td>
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<td>GRAP 16</td>
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<tr>
<td>COMP 64</td>
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</tr>
</tbody>
</table>

**Culinary Arts – Level I**

**Consumer Science and Design Technologies**

**Certificate 61334**

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**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
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<tbody>
<tr>
<td>HRM 52</td>
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<td>HRM 54</td>
<td>3.0 CSU</td>
</tr>
<tr>
<td>HRM 91</td>
<td>1.0 CSU</td>
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<td>NF 20</td>
<td>3.0 CSU</td>
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<tr>
<td></td>
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<td></td>
<td>NF 62</td>
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</tr>
</tbody>
</table>

**Database Management Systems**

**Computer Information Systems Department**

**Certificate 60703**

This certificate program is intended to prepare students to work with database management systems on both microcomputers and mainframes.

**Requirements for the Certificate**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CISM 11</td>
<td>3.5 CSU, UC</td>
</tr>
<tr>
<td>CISM 14</td>
<td>4.0</td>
</tr>
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<td>CISM 21</td>
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<td>Total</td>
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</tr>
</tbody>
</table>

**Corrections**

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 be taken at Mt. San Antonio College and that in each course taken toward a certificate, a grade of “C” or better must be earned. Students who are in 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**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUSL 18</td>
<td>3.0 CSU</td>
</tr>
<tr>
<td>BUSL 18H</td>
<td>3.0</td>
</tr>
<tr>
<td>BUSM 60</td>
<td>3.0 CSU</td>
</tr>
<tr>
<td>FCS 41</td>
<td>3.0 CSU</td>
</tr>
<tr>
<td>FCS 80</td>
<td>3.0 CSU</td>
</tr>
<tr>
<td>BUSA 71</td>
<td>3.0 CSU</td>
</tr>
<tr>
<td>FCS 91</td>
<td>1.0</td>
</tr>
<tr>
<td>BUSL 36</td>
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<td>PLUS</td>
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<tr>
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<td>BUSO 25</td>
</tr>
<tr>
<td></td>
<td>COM 12</td>
</tr>
<tr>
<td></td>
<td>CISM 15</td>
</tr>
<tr>
<td></td>
<td>Total</td>
</tr>
</tbody>
</table>

**Required courses:**
- Business Law, or
- Business Law – Honors
- Human Relations in Business
- Life Management
- Financial Planning, or
- Financial Planning
- Work Experience in Family and Consumer Sciences, or
- Paralegal Internship

**Recommended Electives:**
- Physical Skills Preparation for Law Enforcement and Fire Science
- Agility Testing Preparation for Law Enforcement and Fire Science
- Fitness and Conditioning for Law Enforcement, Fire Science and Forestry
- Spanish for Fire and Police Personnel

**Other Programs of Study Leading to a Certificate**

**CISD 11  
Database Management – Microcomputers**

**CISD 14  
Advanced Database Management – Microcomputers**

**CISD 31  
Database Management**

**CISD 32  
Oracle Forms and Reports**

**CISD 40  
Database Design**

**CISD 50  
Web Based Applications with PL/SQL**

**CISM 11  
Systems Analysis and Design**

**CISM 14  
Computer Information Systems Seminar**

**CISM 21  
Client/Server Architecture**
### Educational Paraprofessional – Level I

**Psychology and Education Department Certificate 62107**

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

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### Electronic Systems Technology – Level II

**Electronic Systems Technology Department Certificate 60928**

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- & 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, 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.

**Recommended Electives:**

- **ELEC 11** Technical Applications in Microcomputers
- **CISB 15** Microcomputer Applications
- **EST 50** Electrical Fundamentals for Cable Installations
- **EST 52** Fabrication Techniques for Cable Installations
- **EST 54** Cabling and Wiring Standards

**Plus the following courses:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELEC 50A</td>
<td>Electronics Theory, and Programming</td>
<td>2.0 CSU</td>
</tr>
<tr>
<td>ELEC 50AL</td>
<td>Electronics Laboratory, and Programming</td>
<td>1.0 CSU</td>
</tr>
<tr>
<td>ELEC 50B</td>
<td>Electronics Theory, and Programming</td>
<td>2.0 CSU</td>
</tr>
<tr>
<td>ELEC 50BL</td>
<td>Electronics Laboratory, and Programming</td>
<td>1.0 CSU</td>
</tr>
<tr>
<td>EST 50</td>
<td>Electrical Fundamentals for Cable Installations</td>
<td>4.0</td>
</tr>
<tr>
<td>ELEC 61</td>
<td>Advanced Surface Mount Assembly and Rework</td>
<td>2.0 CSU</td>
</tr>
</tbody>
</table>

**Total Units 26.0 - 29.0**

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### Electronic Systems Technology – Level I

**Electronics and Computer Technology Department Certificate 60929**

The Level II certification (12-13 units) adds risk management and troubleshooting skills to the installation and repair of electronic assemblies. Certification (15-16 units) develops skills in electrical fundamentals, fabrication techniques, 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.

**Recommended Electives:**

- **ELEC 11** Technical Applications in Microcomputers
- **CISB 15** Microcomputer Applications
- **EST 50** Electrical Fundamentals for Cable Installations
- **EST 52** Fabrication Techniques for Cable Installations
- **EST 54** Cabling and Wiring Standards

**Plus the following courses:**

- **ELEC 50A** Electronics Theory, and Programming | 2.0 CSU
- **CISB 15** Microcomputer Applications | 4.0 CSU, UC
- **EST 50** Electrical Fundamentals for Cable Installations | 4.0
- **EST 52** Fabrication Techniques for Cable Installations | 4.0
- **EST 54** Cabling and Wiring Standards | 4.0

**Total Units 15.0 - 16.0**
Programs of Study Leading to a Certificate

Electronics and Computer-Engineering Technology

Electronics and Computer Technology Department
Certificate 60906

This curriculum starts with basic electronic components and circuitry, culminates with course work in electronic systems, and is characterized by advanced coursework in three major areas. These include microprocessors and interfacing, electronic communications and industrial electronic controls. Students completing the program will have training in all the major areas of electronics and will possess ample skills to make them valuable 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

**Electronics and Computer Technology Department**
Certificate 60906

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
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<tbody>
<tr>
<td>ELEC 55</td>
<td>Microwave Communications Laboratory</td>
<td>3.0</td>
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<tr>
<td>ELEC 55L</td>
<td>Microwave Communications Laboratory</td>
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</tr>
<tr>
<td>ELEC 56</td>
<td>Digital Electronics</td>
<td>3.0</td>
</tr>
<tr>
<td>ELEC 56L</td>
<td>Digital Electronics Laboratory</td>
<td>1.0</td>
</tr>
<tr>
<td>ELEC 61</td>
<td>Electronic Assembly and Fabrication</td>
<td>2.0</td>
</tr>
<tr>
<td>ELEC 74</td>
<td>Microprocessor Systems</td>
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<tr>
<td>ELEC 74L</td>
<td>Microprocessor Systems Laboratory</td>
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<tr>
<td>ELMA 65A</td>
<td>Mathematics of Electronics</td>
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</tr>
<tr>
<td>TECH 60</td>
<td>Customer Relations for the Technician</td>
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</tbody>
</table>

**Total Units: 45.0**

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

Electronics Communications

Electronics and Computer Technology Department
Certificate 60904

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.

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

**Electronics and Computer Technology Department**
Certificate 60904

<table>
<thead>
<tr>
<th>Course Code</th>
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<td>Technical Applications in Microcomputers</td>
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<td>ELEC 12</td>
<td>Computer Simulation and Troubleshooting</td>
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<tr>
<td>ELEC 50A</td>
<td>Electronics Theory</td>
<td>2.0</td>
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<td>ELEC 50AL</td>
<td>Electronics Laboratory</td>
<td>1.0</td>
</tr>
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<td>ELEC 50B</td>
<td>Electronics Theory</td>
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<td>ELEC 50BL</td>
<td>Electronics Laboratory</td>
<td>1.0</td>
</tr>
<tr>
<td>ELEC 51</td>
<td>Electronic Devices Theory</td>
<td>3.0</td>
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<tr>
<td>ELEC 51L</td>
<td>Electronic Devices Laboratory</td>
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<tr>
<td>ELEC 53</td>
<td>Communications Circuits Theory</td>
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<td>ELEC 53L</td>
<td>Communications Circuits Laboratory</td>
<td>1.0</td>
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<td>ELEC 54A</td>
<td>Industrial Circuits Theory</td>
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<td>Industrial Circuits Laboratory</td>
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<td>ELEC 54B</td>
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<tr>
<td>ELEC 54BL</td>
<td>Industrial Electronic Systems Laboratory</td>
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</tbody>
</table>

**Total Units: 34.0**

Electronics Technology

Electronics and Computer Technology Department
Certificate 60905

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 in customer relations.

Requirements for the Certificate

**Electronics and Computer Technology Department**
Certificate 60905

<table>
<thead>
<tr>
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<th>Course Title</th>
<th>Units</th>
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</thead>
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<td>Technical Applications in Microcomputers</td>
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<tr>
<td>ELEC 50A</td>
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<td>ELEC 50AL</td>
<td>Electronics Laboratory</td>
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<td>ELEC 50B</td>
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<tr>
<td>ELEC 50BL</td>
<td>Electronics Laboratory</td>
<td>1.0</td>
</tr>
<tr>
<td>ELEC 51</td>
<td>Electronic Devices Theory</td>
<td>3.0</td>
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<tr>
<td>ELEC 51L</td>
<td>Electronic Devices Laboratory</td>
<td>1.0</td>
</tr>
</tbody>
</table>

**Total Units: 24.0**

Electronics: Industrial Systems

Electronics and Computer Technology Department
Certificate 60908

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 in Electronics Technology and a two-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

**Electronics and Computer Technology Department**
Certificate 60908

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELEC 11</td>
<td>Technical Applications in Microcomputers</td>
<td>3.0</td>
</tr>
<tr>
<td>ELEC 12</td>
<td>Computer Simulation and Troubleshooting</td>
<td>2.0</td>
</tr>
<tr>
<td>ELEC 50A</td>
<td>Electronics Theory</td>
<td>2.0</td>
</tr>
<tr>
<td>ELEC 50AL</td>
<td>Electronics Laboratory</td>
<td>1.0</td>
</tr>
<tr>
<td>ELEC 50B</td>
<td>Electronics Theory</td>
<td>2.0</td>
</tr>
<tr>
<td>ELEC 50BL</td>
<td>Electronics Laboratory</td>
<td>1.0</td>
</tr>
<tr>
<td>ELEC 51</td>
<td>Electronic Devices Theory</td>
<td>3.0</td>
</tr>
<tr>
<td>ELEC 51L</td>
<td>Electronic Devices Laboratory</td>
<td>1.0</td>
</tr>
</tbody>
</table>

**Total Units: 24.0**
Programs of Study Leading to a Certificate

Emergency Medical Technician – Paramedic (EMT-P)
Medical Services Department
Certificate 61211

This Paramedic Program is accredited by CAAHEP (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 Externship as a practicing Paramedic under the guidance and supervision of a Paramedic Field Preceptor.

Upon completion of the required courses in the Paramedic Program, the student is granted a Certificate of Completion as an Emergency Medical Technician-Paramedic (EMT-P) by the College. Students are then eligible for licensure by taking and passing both the National Registry Exam and by taking and passing the Los Angeles 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. 4265. All applications are dated upon receipt in the Technology and Health Division Office.
  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.
  6. Successful completion of both written and practical qualifying examinations, will be required of all candidates after acceptance to the Paramedic Program. Students are then eligible for licensure by taking and passing both the National Registry Exam and the Los Angeles County Paramedic accreditation exam.

**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

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

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

**Recommended Electives:**
- EMS 50 Paramedic Field Internship 8.5
- Total Units 39.0

**Courses and Credits:**
- EMS 10 Anatomy and Physiology for Paramedics 2.0
- EMS 20 Emergency Cardiac Care for Paramedics 1.0
- EMS 30 Pharmacology for Paramedics 2.0
- EMS 40 Cardiology for Paramedics 5.0
- EMS 50 Paramedic Skills Competency 4.5
- EMS 60 EMS Theory for Paramedics 8.5
- EMS 70 Paramedic Clinical Internship 3.5
- EMS 80 Paramedic Field Internship 8.5
- Total Units 39.0

**Special Information:**
- EMS-1, Fundamentals for Paramedics.
- Successful completion of EMS-1, Fundamentals for Paramedics.
- Forward two official transcripts of all coursework completed (high school, EMT-I, Fire Science, and other than Mt. San Antonio College courses) to the Assessment Center, located in the Technology and Health Division Office, the other to the Admissions and Records Office.
- If the course(s) were taken and/or the degree obtained at Mt. San Antonio College, it is not necessary to request transcripts.

Section 8  81

Engineering Design Technology – Level I
Architecture and Engineering Design Department
Certificate 60900

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.
Programs of Study Leading to a Certificate

Requirements for the Certificate
Required courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDT 11</td>
<td>Technical Engineering Drawing I</td>
<td>3.0 CSU</td>
</tr>
<tr>
<td>EDT 12</td>
<td>Technical Engineering Drawing II</td>
<td>3.0 CSU</td>
</tr>
<tr>
<td>EDT 14</td>
<td>Mechanical Design – Geometric</td>
<td>3.0 CSU</td>
</tr>
<tr>
<td>EDT 16</td>
<td>Basic CAD and Computer Applications</td>
<td>4.0 CSU</td>
</tr>
<tr>
<td>EDT 18</td>
<td>Engineering CAD Applications</td>
<td>4.0 CSU</td>
</tr>
<tr>
<td>MFG 11</td>
<td>Manufacturing Processes I, or</td>
<td>2.0 CSU</td>
</tr>
<tr>
<td>ELEC 50A</td>
<td>Electronics Theory, and</td>
<td>2.0 CSU</td>
</tr>
<tr>
<td>ELEC 50AL</td>
<td>Electronics Laboratory</td>
<td>1.0 CSU</td>
</tr>
<tr>
<td>EDT 20</td>
<td>Technical Descriptive Geometry</td>
<td>3.0 CSU</td>
</tr>
<tr>
<td>EDT 24</td>
<td>Engineering CAD 3-D Solids and Surfaces</td>
<td>3.0 CSU</td>
</tr>
<tr>
<td>ELEC 50B</td>
<td>Electronics Theory</td>
<td>2.0 CSU</td>
</tr>
<tr>
<td>ELEC 50BL</td>
<td>Electronics Laboratory</td>
<td>1.0 CSU</td>
</tr>
<tr>
<td>MFG 11</td>
<td>Manufacturing Processes I, or</td>
<td>2.0 CSU</td>
</tr>
<tr>
<td>ELEC 50A</td>
<td>Electronics Theory, and</td>
<td>2.0 CSU</td>
</tr>
<tr>
<td>ELEC 50AL</td>
<td>Electronics Laboratory</td>
<td>1.0 CSU</td>
</tr>
</tbody>
</table>

**Total Units: 30.0 - 32.0**

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 60915**

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:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDT 11</td>
<td>Technical Engineering Drawing I</td>
<td>3.0 CSU</td>
</tr>
<tr>
<td>EDT 12</td>
<td>Technical Engineering Drawing II</td>
<td>3.0 CSU</td>
</tr>
<tr>
<td>EDT 14</td>
<td>Mechanical Design – Geometric</td>
<td>3.0 CSU</td>
</tr>
<tr>
<td>EDT 16</td>
<td>Basic CAD and Computer Applications</td>
<td>4.0 CSU</td>
</tr>
<tr>
<td>EDT 18</td>
<td>Engineering CAD Applications</td>
<td>4.0 CSU</td>
</tr>
<tr>
<td>MFG 11</td>
<td>Manufacturing Processes I, or</td>
<td>2.0 CSU</td>
</tr>
<tr>
<td>ELEC 50A</td>
<td>Electronics Theory, and</td>
<td>2.0 CSU</td>
</tr>
<tr>
<td>ELEC 50AL</td>
<td>Electronics Laboratory</td>
<td>1.0 CSU</td>
</tr>
</tbody>
</table>

**Required courses:**

**Level II as follows:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDT 20</td>
<td>Technical Descriptive Geometry</td>
<td>3.0 CSU</td>
</tr>
<tr>
<td>EDT 24</td>
<td>Engineering CAD 3-D Solids and Surfaces</td>
<td>3.0 CSU</td>
</tr>
<tr>
<td>ELEC 50A</td>
<td>Electronics Theory, and</td>
<td>2.0 CSU</td>
</tr>
<tr>
<td>ELEC 50AL</td>
<td>Electronics Laboratory</td>
<td>1.0 CSU</td>
</tr>
</tbody>
</table>

**Plus the following courses:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDT 26</td>
<td>Civil Engineering Technology and CAD</td>
<td>3.0 CSU</td>
</tr>
<tr>
<td>EDT 28</td>
<td>Engineering CAD 3-D Illustration/Animation</td>
<td>3.0 CSU</td>
</tr>
</tbody>
</table>

**Total Units: 19.0 - 20.0**

**Engineering Design Technology – Level III**

**Architecture and Engineering Design Department Certificate 60916**

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

Requirements for the Certificate
Required courses:

**Level I as follows:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDT 24</td>
<td>Engineering CAD 3-D Solids and Surfaces</td>
<td>3.0 CSU</td>
</tr>
<tr>
<td>ELEC 50B</td>
<td>Electronics Theory</td>
<td>2.0 CSU</td>
</tr>
<tr>
<td>ELEC 50BL</td>
<td>Electronics Laboratory</td>
<td>1.0 CSU</td>
</tr>
<tr>
<td>MFG 11</td>
<td>Manufacturing Processes I, or</td>
<td>2.0 CSU</td>
</tr>
<tr>
<td>ELEC 50A</td>
<td>Electronics Theory, and</td>
<td>2.0 CSU</td>
</tr>
<tr>
<td>ELEC 50AL</td>
<td>Electronics Laboratory</td>
<td>1.0 CSU</td>
</tr>
</tbody>
</table>

| Total Units | 30.0 - 32.0 |

**Plus the following courses:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDT 26</td>
<td>Civil Engineering Technology and CAD</td>
<td>3.0 CSU</td>
</tr>
<tr>
<td>EDT 28</td>
<td>Engineering CAD 3-D Illustration/Animation</td>
<td>3.0 CSU</td>
</tr>
</tbody>
</table>

**Total Units: 39.0 - 41.0**

**Escrow Management**

**Business Administration Department Certificate 60511**

**Requirements for the Certificate**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUSA 11</td>
<td>Fundamentals of Accounting</td>
<td>3.0</td>
</tr>
<tr>
<td>BUSR 50</td>
<td>Real Estate Principles</td>
<td>3.0</td>
</tr>
<tr>
<td>BUSR 51</td>
<td>Legal Aspects of Real Estate</td>
<td>3.0</td>
</tr>
<tr>
<td>BUSR 76</td>
<td>Escrow Procedures I</td>
<td>3.0</td>
</tr>
<tr>
<td>BUSR 77</td>
<td>Escrow Procedures II</td>
<td>3.0</td>
</tr>
<tr>
<td>CISM 15</td>
<td>Microcomputer Applications</td>
<td>4.0</td>
</tr>
</tbody>
</table>

| Total Units | 19.0 |

**Family Child Care**

**Child Development Department Certificate 61316**

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**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHLD 1</td>
<td>Child, Family and Community</td>
<td>3.0</td>
</tr>
<tr>
<td>CHLD 5</td>
<td>Principles/Practices in Child Development Programs</td>
<td>3.0</td>
</tr>
<tr>
<td>CHLD 6</td>
<td>Survey of Child Development Curriculum</td>
<td>3.0</td>
</tr>
<tr>
<td>CHLD 10</td>
<td>Child Growth and Development, or</td>
<td>3.0</td>
</tr>
<tr>
<td>CHLD 10H</td>
<td>Child Growth and Development – Honors</td>
<td>3.0</td>
</tr>
<tr>
<td>CHLD 92</td>
<td>Family Child Care</td>
<td>3.0</td>
</tr>
</tbody>
</table>

**Plus the following courses:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course 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</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 and Development</td>
<td>2.0</td>
</tr>
</tbody>
</table>

| Total Units | 14.0 |

**Plus the following courses:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUSR 50</td>
<td>Real Estate Principles</td>
<td>3.0</td>
</tr>
<tr>
<td>BUSR 51</td>
<td>Legal Aspects of Real Estate</td>
<td>3.0</td>
</tr>
<tr>
<td>BUSR 76</td>
<td>Escrow Procedures I</td>
<td>3.0</td>
</tr>
<tr>
<td>BUSR 77</td>
<td>Escrow Procedures II</td>
<td>3.0</td>
</tr>
<tr>
<td>CISM 15</td>
<td>Microcomputer Applications</td>
<td>4.0</td>
</tr>
</tbody>
</table>

| Total Units | 25.0 |

**Fashion Design – Computer-Aided Consumer Science and Design Technologies Certificate 61329**

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 Code</th>
<th>Course 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</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 and Development</td>
<td>2.0</td>
</tr>
</tbody>
</table>

| Total Units | 14.0 |
Fashion Design – Level I
Consumer Science and Design Technologies
Certificate 61307

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

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>FASH 8</td>
<td>Introduction to Fashion</td>
<td>3.0 CSU</td>
</tr>
<tr>
<td>FASH 10</td>
<td>Clothing Construction I</td>
<td>3.0 CSU</td>
</tr>
<tr>
<td>FASH 12</td>
<td>Clothing Construction II</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 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 22</td>
<td>Fashion Design By Draping</td>
<td>3.0</td>
</tr>
<tr>
<td>FASH 23</td>
<td>Patternmaking II</td>
<td>3.0</td>
</tr>
<tr>
<td>FASH 30</td>
<td>Fashion Design and Product Development I</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Total Units 27.0

Fashion Design – Level II
Consumer Science and Design Technologies
Certificate 61309

The Fashion Design: Level II Certificate builds upon the Fashion Design: Level I Certificate to provide students with a solid foundation of apparel and will further research and design product for divergent target markets. Students will prepare professional portfolios 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 product for divergent target markets. Students will prepare professional portfolios that will enhance their Fashion Design careers. Completion of the Fashion Design: Level II Certificate will lead new opportunities and provide students with a solid foundation upon which to build a career.

Requirements for the Certificate

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>FASH 8</td>
<td>Introduction to Fashion</td>
<td>3.0 CSU</td>
</tr>
<tr>
<td>FASH 10</td>
<td>Clothing Construction I</td>
<td>3.0 CSU</td>
</tr>
<tr>
<td>FASH 12</td>
<td>Clothing Construction II</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>
</tbody>
</table>

Total Units 15.0

Fashion Merchandising – Level I
Consumer Science and Design Technologies
Certificate 61308

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

Requirements for the Certificate

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>FASH 8</td>
<td>Introduction to Fashion</td>
<td>3.0 CSU</td>
</tr>
<tr>
<td>FASH 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>
</tbody>
</table>

Total Units 27.0

Fashion Merchandising – Level II
Consumer Science and Design Technologies
Certificate 61303

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

Requirements for the Certificate

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>FASH 9</td>
<td>History of Costume and Fashion</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 32</td>
<td>Fashion Design and Product Development II</td>
<td>3.0</td>
</tr>
<tr>
<td>FASH 33</td>
<td>Art, Merchandising, and Technology</td>
<td>3.0</td>
</tr>
<tr>
<td>FASH 66</td>
<td>Visual Merchandising Display</td>
<td>3.0 CSU</td>
</tr>
</tbody>
</table>

Total Units 27.0

Fire Administration
Fire Technology Department
Certificate 62130

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

Requirements for the Certificate

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<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 40</td>
<td>Fire Prevention I</td>
<td>2.0</td>
</tr>
<tr>
<td>FIRE 50</td>
<td>Fire Command I</td>
<td>2.0</td>
</tr>
<tr>
<td>FIRE 51</td>
<td>Fire Command I</td>
<td>2.0</td>
</tr>
<tr>
<td>FIRE 60</td>
<td>Fire Investigation I</td>
<td>2.0</td>
</tr>
</tbody>
</table>

Total Units 16.0

Fire Management
Fire Technology Department
Certificate 62131

The Fire Management Certificate prepares public agency firefighters or private fire personnel for career advancement and provides personal development. This certificate prepares students for positions 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.
### Programs of Study Leading to a Certificate

#### Requirements for the Certificate

<table>
<thead>
<tr>
<th>Required courses:</th>
</tr>
</thead>
<tbody>
<tr>
<td>FIRE 7 Fire Fighting Tactics and Strategy</td>
</tr>
<tr>
<td>FIRE 8 Fire Company Organization and Management</td>
</tr>
<tr>
<td>FIRE 10 Arson and Fire Investigation</td>
</tr>
<tr>
<td>FIRE 20 Fire Instructor 1A</td>
</tr>
<tr>
<td>FIRE 21 Fire Instructor 1B</td>
</tr>
<tr>
<td>FIRE 30 Fire Management 1</td>
</tr>
<tr>
<td>FIRE 50 Fire Command 1A</td>
</tr>
</tbody>
</table>

**Total Units: 17.0**

#### Recommended Electives:

| PE-F 50 | Physical Skills Preparation for Administration of Justice and Fire Technology |
| PE-F 51 | Agility Testing Preparation for Administration of Justice and Fire Technology |
| PE-F 52 | Fitness and Conditioning for Administration of Justice, Fire Technology, and Forestry |
| SPAN 66 | Spanish for Fire and Police Personnel |

#### Fitness Specialist/Personal Trainer

**Physical Education Department Certificate 60808**

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 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>Required courses:</th>
</tr>
</thead>
<tbody>
<tr>
<td>NF 10 Nutrition for Personal Health and Wellness</td>
</tr>
<tr>
<td>PE 15 Administration of Fitness Programs</td>
</tr>
<tr>
<td>PE 24 Kinesiology</td>
</tr>
<tr>
<td>PE 38 Physiology of Exercise for Fitness</td>
</tr>
<tr>
<td>PE 39 Techniques of Fitness Testing</td>
</tr>
<tr>
<td>PE 40 Techniques of Teaching Cardiovascular Exercise</td>
</tr>
<tr>
<td>PE 41 Techniques of Teaching Weight Training</td>
</tr>
<tr>
<td>PE 85 Fitness Specialist Internship</td>
</tr>
</tbody>
</table>

**Total Units: 17.0**

#### Recommended Electives:

| DNCE 39A | Alignment and Correctives |

#### Foster Care

**Child Development Department Certificate 61317**

This certificate requires the completion of twelve (12) units.

#### Requirements for the Certificate

<table>
<thead>
<tr>
<th>Required courses:</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHLD 1 Child, Family and Community</td>
</tr>
<tr>
<td>CHLD 10 Child Growth and Development – Honors, or</td>
</tr>
<tr>
<td>CHLD 10H Child Growth and Development – Honors, or</td>
</tr>
<tr>
<td>SOC 15 Child Development</td>
</tr>
<tr>
<td>CHLD 68 Children with Special Needs</td>
</tr>
<tr>
<td>CHLD 95 Issues in Foster Parenting</td>
</tr>
<tr>
<td>CHLD 96 Discipline and Adjustment in Foster Care</td>
</tr>
<tr>
<td>CHLD 97 Independent Living Through Foster Care</td>
</tr>
</tbody>
</table>

**Total Units: 12.0**

#### Geographic Information Systems

**History, Art History, Geography, Political Science Certificate 62200**

The certificate program in Geographic Information Systems provides students in various disciplines the opportunity to develop expertise in the creation, manipulation, analysis, and display of geographic information. This exciting technology has applications in many fields including environmental assessment, analysis of natural hazards, site analysis for business and industry, criminal justice, real estate, location analysis, resource management, land use planning, and global changes and systems modeling.

This program was developed with two intended groups in mind: 1) Currently enrolled students who wish to focus their training and skills for a career in GIS; 2) Currently employed persons who need or wish to enhance their knowledge of GIS for better understanding or to support their current job activities.

The program starts with a set of basic courses in geographic information technology and map reading.
### Horse Ranch Management
#### Agricultural Sciences Department
Certificate 60102

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**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AGLI 19</td>
<td>Horse Ranch Management</td>
<td>4.0</td>
</tr>
<tr>
<td>AGLI 20</td>
<td>Animal Nutrition</td>
<td>3.0</td>
</tr>
<tr>
<td>AGLI 21</td>
<td>Animal Breeding</td>
<td>3.0</td>
</tr>
<tr>
<td>AGLI 22</td>
<td>Horse Production, or</td>
<td>4.0</td>
</tr>
<tr>
<td>AGLI 28</td>
<td>Horse Ranch Management</td>
<td>4.0</td>
</tr>
<tr>
<td>AGLI 29</td>
<td>Horse Hoof Care</td>
<td>2.0</td>
</tr>
<tr>
<td>AGLI 30</td>
<td>Animal Sanitation and Disease Control</td>
<td>3.0</td>
</tr>
<tr>
<td>AGLI 31</td>
<td>Artificial Insemination of Livestock</td>
<td>2.0</td>
</tr>
</tbody>
</table>

**Total Units** 21.0 - 24.0

### Hospitality: Catering
#### Consumer Science and Design Technologies
Certificate 61315

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**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>HRM 51</td>
<td>Introduction to Hospitality</td>
<td>3.0</td>
</tr>
<tr>
<td>HRM 52</td>
<td>Food Safety and Sanitation</td>
<td>1.5</td>
</tr>
<tr>
<td>HRM 53</td>
<td>Dining Room Service Management</td>
<td>3.0</td>
</tr>
<tr>
<td>HRM 54</td>
<td>Basic Cooking Techniques</td>
<td>3.0</td>
</tr>
<tr>
<td>HRM 56</td>
<td>Menu Planning</td>
<td>3.0</td>
</tr>
<tr>
<td>HRM 62</td>
<td>Catering</td>
<td>3.0</td>
</tr>
<tr>
<td>HRM 91</td>
<td>Work Experience in Restaurant/Hospitality</td>
<td>1.0</td>
</tr>
<tr>
<td>HRM 92</td>
<td>Principles of Foods with Lab</td>
<td>3.0</td>
</tr>
</tbody>
</table>

**Total Units** 20.5

### Hospitality: Food Services
#### Consumer Science and Design Technologies
Certificate 61320

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**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>HRM 51</td>
<td>Introduction to Hospitality</td>
<td>3.0</td>
</tr>
<tr>
<td>HRM 52</td>
<td>Food Safety and Sanitation</td>
<td>1.5</td>
</tr>
<tr>
<td>HRM 53</td>
<td>Dining Room Service Management</td>
<td>3.0</td>
</tr>
<tr>
<td>HRM 54</td>
<td>Basic Cooking Techniques</td>
<td>3.0</td>
</tr>
<tr>
<td>HRM 55</td>
<td>Menu Planning</td>
<td>3.0</td>
</tr>
<tr>
<td>HRM 62</td>
<td>Catering</td>
<td>3.0</td>
</tr>
<tr>
<td>HRM 91</td>
<td>Work Experience in Restaurant/Hospitality</td>
<td>1.0</td>
</tr>
</tbody>
</table>

**Total Units** 7.5

### Hospitality: Hospitality Management – Level I
#### Consumer Science and Design Technologies
Certificate 61332

The Hospitality: Hospitality Management – Level I Certificate prepares the holder for an entry-level position within the hospitality industry.

**Requirements for the Certificate**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>HRM 51</td>
<td>Introduction to Hospitality</td>
<td>3.0</td>
</tr>
<tr>
<td>HRM 52</td>
<td>Food Safety and Sanitation</td>
<td>1.5</td>
</tr>
<tr>
<td>HRM 53</td>
<td>Dining Room Service Management</td>
<td>3.0</td>
</tr>
<tr>
<td>HRM 70</td>
<td>Introduction to Lodging</td>
<td>3.0</td>
</tr>
<tr>
<td>HRM 91</td>
<td>Work Experience in Restaurant/Hospitality</td>
<td>1.0</td>
</tr>
</tbody>
</table>

**Total Units** 10.0

### Hospitality: Hospitality Management – Level II
#### Consumer Science and Design Technologies
Certificate 61325

This certificate prepares the holder to enter the hospitality field as a manager-trainee in a hotel or restaurant.

**Requirements for the Certificate**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>HRM 51</td>
<td>Introduction to Hospitality</td>
<td>3.0</td>
</tr>
<tr>
<td>HRM 52</td>
<td>Food Safety and Sanitation</td>
<td>1.5</td>
</tr>
<tr>
<td>HRM 53</td>
<td>Dining Room Service Management</td>
<td>3.0</td>
</tr>
<tr>
<td>HRM 54</td>
<td>Basic Cooking Techniques</td>
<td>3.0</td>
</tr>
<tr>
<td>HRM 55</td>
<td>Menu Planning</td>
<td>3.0</td>
</tr>
<tr>
<td>HRM 62</td>
<td>Catering</td>
<td>3.0</td>
</tr>
<tr>
<td>HRM 91</td>
<td>Work Experience in Restaurant/Hospitality</td>
<td>1.0</td>
</tr>
</tbody>
</table>

**Total Units** 19.0

### Hospitality: Restaurant Management – Level I
#### Consumer Science and Design Technologies
Certificate 61333

The Hospitality: Restaurant Management – Level I Certificate prepares the holder for an entry-level position within a restaurant.

**Requirements for the Certificate**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>HRM 51</td>
<td>Introduction to Hospitality</td>
<td>3.0</td>
</tr>
<tr>
<td>HRM 52</td>
<td>Food Safety and Sanitation</td>
<td>1.5</td>
</tr>
<tr>
<td>HRM 53</td>
<td>Dining Room Service Management</td>
<td>3.0</td>
</tr>
<tr>
<td>HRM 54</td>
<td>Basic Cooking Techniques</td>
<td>3.0</td>
</tr>
<tr>
<td>HRM 55</td>
<td>Menu Planning</td>
<td>3.0</td>
</tr>
<tr>
<td>HRM 62</td>
<td>Catering</td>
<td>3.0</td>
</tr>
<tr>
<td>HRM 91</td>
<td>Work Experience in Restaurant/Hospitality</td>
<td>1.0</td>
</tr>
</tbody>
</table>

**Total Units** 8.5

### Hospitality: Restaurant Management – Level II
#### Consumer Science and Design Technologies
Certificate 61319

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**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>HRM 51</td>
<td>Introduction to Hospitality</td>
<td>3.0</td>
</tr>
<tr>
<td>HRM 52</td>
<td>Food Safety and Sanitation</td>
<td>1.5</td>
</tr>
<tr>
<td>HRM 53</td>
<td>Dining Room Service Management</td>
<td>3.0</td>
</tr>
<tr>
<td>HRM 54</td>
<td>Basic Cooking Techniques</td>
<td>3.0</td>
</tr>
<tr>
<td>HRM 55</td>
<td>Menu Planning</td>
<td>3.0</td>
</tr>
<tr>
<td>HRM 62</td>
<td>Catering</td>
<td>3.0</td>
</tr>
<tr>
<td>HRM 91</td>
<td>Work Experience in Restaurant/Hospitality</td>
<td>1.0</td>
</tr>
</tbody>
</table>

**Total Units** 10.0

### Infant/Toddler Development
#### Child Development Department
Certificate 61318

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**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHLD 1</td>
<td>Child, Family and Community</td>
<td>3.0</td>
</tr>
<tr>
<td>CHLD 5</td>
<td>Principles/Practices in Child Development Programs</td>
<td>3.0</td>
</tr>
<tr>
<td>CHLD 6</td>
<td>Survey of Child Development Curriculum</td>
<td>3.0</td>
</tr>
<tr>
<td>CHLD 10</td>
<td>Child Growth and Development, or</td>
<td>3.0</td>
</tr>
<tr>
<td>CHLD 10H</td>
<td>Child Growth and Development – Honors</td>
<td>3.0</td>
</tr>
<tr>
<td>CHLD 85</td>
<td>Infants at Risk</td>
<td>3.0</td>
</tr>
<tr>
<td>PLUS</td>
<td>Select four (4) courses from:</td>
<td></td>
</tr>
<tr>
<td>CHLD 50</td>
<td>Multicultural Education: Anti-Bias Perspective</td>
<td>3.0</td>
</tr>
<tr>
<td>CHLD 61</td>
<td>Language Arts &amp; Art Media for Young Children</td>
<td>3.0</td>
</tr>
<tr>
<td>CHLD 62</td>
<td>Music and Motor Development for Young Children</td>
<td>3.0</td>
</tr>
<tr>
<td>CHLD 64</td>
<td>Health, Safety and Nutrition of Young Children</td>
<td>3.0</td>
</tr>
<tr>
<td>CHLD 72</td>
<td>Teacher, Parent, and Child Relationships</td>
<td>3.0</td>
</tr>
</tbody>
</table>

**Total Units** 19.5

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Section 8 85
Programs of Study Leading to a Certificate

Information and Operating Systems Security
Computer Information Systems Department
Certificate 60731
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 Practical Computer Security 2.0
- CISS 13 Principles of Information Systems Security 4.0
- CISS 15 Operating Systems Security 4.0
Total Units 10.0

Interior Design Level I – Merchandising
Consumer Science and Design Technologies Certificate 61322
This program is intended to prepare students for employment as assistants and sales personnel for interior design products. The Interior Design program works within a Regional Interior Design Consortium of nearby community colleges. Many of the required courses may also be offered at the following community colleges: Fullerton, Long Beach City, Orange Coast, and Saddleback, and will meet the requirements of the Mt. SAC program. Regional course numbers have an ID (Interior Design) prefix. Some Mt. San Antonio College courses are offered by other departments and are identified by Mt. San Antonio College prefixes and numbers. These courses have the regional identification course number (RID) in parenthesis following their course title.

Requirements for the Certificate
Required courses:
- Completion of the Interior Design Level I – Merchandising Certificate (25 units) as follows:
  - ARCH 11 Architectural Drawing 3.0 CSU, UC
  - ARCH 16 Basic CAD and Computer Application 4.0 CSU, UC
  - BUSS 35 Professional Selling 3.0 CSU
  - ID 100 Fundamentals of Interior Design 3.0 CSU
  - ID 105 Interior Design Studio I 2.0 CSU
  - ID 120 Interior Design Careers 2.0 CSU
  - ID 130 Applied Color and Design Theory 4.0 CSU
  - ID 150 Interior Materials and Products 4.0 CSU

Required courses:
- Level II as follows:
  - ARCH 13 Architectural Illustration 3.0 CSU, UC
  - ARCH 15 Architectural Working Drawings – I 3.0 CSU
  - ID 170 Space Planning 3.0 CSU
  - ID 180 History of Interior Architecture & Furnishings I 3.0 CSU
  - ID 190 History of Interior Architecture & Furnishings II 3.0 CSU
  - ID 210 Fundamentals of Lighting 3.0
  - ID 215 Interior Design Studio II 2.0 CSU
  - ID 230 Business and Professional Practice 4.0 CSU

Total Units 25.0

Interior Design Level II – Design Consumer Science and Design Technologies Certificate 61330
This program is available as a certificate for students who have previous A.A., A.S. or Bachelor's Degree in another discipline. This program is designed to meet the professional requirements for entrance into an interior design career as an assistant interior designer. The Interior Design program works within a Regional Interior Design Consortium of nearby community colleges. Many of the required courses may also be offered at the following community colleges: Fullerton, Long Beach City, Orange Coast, and Saddleback, and will meet the requirements of the Mt. SAC program. Regional course numbers have an ID (Interior Design) prefix. Some Mt. San Antonio College courses are offered by other departments and are identified by Mt. San Antonio College prefixes and numbers. These courses have the regional identification course number (RID) in parenthesis following their course title.

Requirements for the Certificate
Required courses:
- Completion of the Interior Design Level I – Merchandising Certificate (25 units) as follows:
  - ARCH 11 Architectural Drawing 3.0 CSU, UC
  - ARCH 16 Basic CAD and Computer Application 4.0 CSU, UC
  - BUSS 35 Professional Selling 3.0 CSU
  - ID 100 Fundamentals of Interior Design 3.0 CSU
  - ID 105 Interior Design Studio I 2.0 CSU
  - ID 120 Interior Design Careers 2.0 CSU
  - ID 130 Applied Color and Design Theory 4.0 CSU
  - ID 150 Interior Materials and Products 4.0 CSU

Required courses:
- Level II as follows:
  - ARCH 13 Architectural Illustration 3.0 CSU, UC
  - ARCH 15 Architectural Working Drawings – I 3.0 CSU
  - ID 170 Space Planning 3.0 CSU
  - ID 180 History of Interior Architecture & Furnishings I 3.0 CSU

Total Units 25.0

Interior Design Level III – Professional Designation
Consumer Science and Design Technologies Certificate 61301
This program has been aligned with California State University Dominguez Hills (CSUDH) to offer students either a Bachelor of Arts (BA) in Interdisciplinary Studies through PACE (Program for Adult College Education) or a Bachelor of Science (BS) in Applied Studies. Students must complete 16 units of credit in Interior Design at Mt. SAC or another college within the Regional Interior Design Program. Upon completion of the Bachelor's Degree program at CSUDH, students must complete 15 units of credit in Interior Design at Mt. SAC or another college within the Regional Interior Design Program. Upon completion of the Bachelor's Degree, the student may request a Professional Designation in Interior Design from the Interior Design program at Mt. SAC. Students already holding a Bachelor's Degree may also apply for the Professional Designation in Interior Design after completing the requirements listed below.

Requirements for the Certificate
Required courses:
- Completion of the Interior Design Level I – Merchandising Certificate (25 units) as follows:
  - ARCH 11 Architectural Drawing 3.0 CSU, UC
  - ARCH 16 Basic CAD and Computer Application 4.0 CSU, UC
  - BUSS 35 Professional Selling 3.0 CSU
  - ID 100 Fundamentals of Interior Design 3.0 CSU
  - ID 105 Interior Design Studio I 2.0 CSU
  - ID 120 Interior Design Careers 2.0 CSU
  - ID 130 Applied Color and Design Theory 4.0 CSU
  - ID 150 Interior Materials and Products 4.0 CSU

Required courses:
- Level II as follows:
  - ARCH 13 Architectural Illustration 3.0 CSU, UC
  - ARCH 15 Architectural Working Drawings – I 3.0 CSU
  - ID 170 Space Planning 3.0 CSU
  - ID 180 History of Interior Architecture & Furnishings I 3.0 CSU

Total Units 50.0

Interior Landscaping
Agricultural Sciences Department Certificate 60106
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
Required courses:
- AGOR 1 Horticultural Science 3.0 CSU
- AGOR 13 Landscape Design 3.0 CSU
- AGOR 15 Interior Landscaping 3.0 CSU
- AGOR 24 Integrated Pest Management 3.0 CSU
- AGOR 29 Ornamental Plants – Herbs 3.0 CSU, UC
- AGOR 32 Landscaping and Nursery 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 24.0
Introduction to Computer Information Technology
Computer Information Systems Department
Certificate 60712
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:
- CIS 11 Computer Information Systems 3.5 CSU, UC
- CISW 11 The Internet 4.0 CSU
- COMP 12 Office Computer Applications, or 4.0 CSU, UC
- CIS 15 Microcomputer Applications 4.0 CSU, UC

Total Units 11.5

Kitchen and Bath Design
Consumer Science and Design Technologies
Certificate 61302
This Mt. SAC Kitchen and Bath Design Certificate program provides for immediate opportunity to seek employment in the area of Kitchen and Bath Design. This certificate program is endorsed by the National Kitchen and Bath Association. Students completing all courses for this certificate will earn four (4) NKBA credits toward eligibility for professional certification as a Certified Kitchen Designer or Certified Bath Designer. Please see a professor of Interior Design or contact the NKBA for professional certification eligibility requirements beyond this program.

Requirements for the Certificate
Required courses:
- ARCH 11 Architectural Drawing 3.0 CSU, UC
- ARCH 15 Architectural Working Drawings – I 3.0 CSU
- ARCH 16 Basic CAD and Computer Application 4.0 CSU, UC Education
- ID 100 Fundamentals of Interior Design 3.0 CSU
- ID 150 Interior Materials and Products 4.0 CSU
- ID 170 Space Planning 3.0 CSU
- ID 180 History of Interior Architecture & Furnishings I 3.0 CSU

Total Units 56.0

Recommended Electives:
- ARCH 13 Architectural Illustration
- ARCH 23 Architectural Presentations
- BUSA 72 Bookkeeping – Accounting
- BUSM 60 Human Relations in Business
- BUSM 66 Small Business Management
- BUS 35 Professional Selling
- BUSS 50 Retail Store Management and Merchandising

Landscape and Park Maintenance
Agricultural Sciences Department
Certificate 60108
This certificate program is designed to give students basic skills in the maintenance of landscapes of parks. All courses are applicable for degree requirements.

Requirements for the Certificate
Required courses:
- AGOR 1 Horticultural Science 3.0 CSU
- AGOR 13 Landscape Design 3.0 CSU
- AGOR 24 Integrated Pest Management 3.0 CSU
- AGOR 29 Ornamental Plants – Herbaceous 3.0 CSU, UC
- AGOR 30 Ornamental Plants – Trees and Woody Shrubs 3.0 CSU, UC
- AGOR 39 Turf Grass Production and Management 3.0 CSU
- AGOR 40 Sports Surf Management 3.0
- AGOR 51 Tractor and Landscape Equipment Operations 3.0 CSU

Total Units 27.0

Landscape Irrigation
Agricultural Sciences Department
Certificate 60110
This certificate program is designed to give students basic skills in irrigation design, repair, installation, water management, and troubleshooting. A student could seek employment with a landscape contractor, schools, parks, and cities. All courses are applicable for degree requirements.

Requirements for the Certificate
Required courses:
- AGOR 1 Horticultural Science 3.0 CSU
- AGOR 13 Landscape Design 3.0 CSU
- AGOR 24 Integrated Pest Management 3.0 CSU
- AGOR 29 Ornamental Plants – Herbaceous 3.0 CSU, UC
- AGOR 30 Ornamental Plants – Trees and Woody Shrubs 3.0 CSU, UC
- AGOR 50 Soil Science and Management 3.0 CSU, UC
- AGOR 51 Tractor and Landscape Equipment Operations 3.0 CSU
- AGOR 62 Landscape Irrigation – Design and Installation 3.0 CSU
- AGOR 71 Landscape Construction Fundamentals 3.0 CSU
- AGOR 72 Landscape Hardscape Applications 3.0 CSU

Total Units 31.0 - 34.0

Landscape Equipment Technology
Agricultural Sciences Department
Certificate 60117
This certificate program is designed to give students basic skills to seek employment in equipment repair, golf courses, rental yards, and small equipment repair shops. All courses are applicable for degree requirements.

Requirements for the Certificate
Required courses:
- 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, UC
- AGOR 30 Ornamental Plants – Trees and Woody Shrubs 3.0 CSU, UC
- AGOR 39 Turf Grass Production and Management 3.0 CSU
- AGOR 40 Sports Surf Management 3.0
- AGOR 51 Tractor and Landscape Equipment Operations 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 Applications 3.0 CSU
- AGOR 91 Work Experience in Nursery Operations 1.0
- AGOR 92 Work Experience in Nursery Operations 2.0
- AGOR 93 Work Experience in Nursery Operations 3.0
- AGOR 94 Work Experience in Nursery Operations 4.0

Total Units 27.0
Programs of Study Leading to a Certificate

Law Enforcement
Public Services Department
Certificate 62102
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 1 The Administration of Justice System 3.0 CSU, UC
ADJU 2 Principles and Procedures of the Justice System 3.0 CSU
ADJU 3 Concepts of Criminal Law 3.0 CSU, UC
ADJU 4 Legal Aspects of Evidence 3.0 CSU
ADJU 5 Community Relations 3.0 CSU
ADJU 68 Administration of Justice Report Writing 3.0

PLUS
Select four (4) courses from:
ADJU 6 Concepts of Enforcement 3.0
ADJU 13 Concepts of Traffic Services 3.0
ADJU 20 Principles of Investigation 3.0 CSU
ADJU 38 Narcotics Investigation 3.0
ADJU 59 Gangs in the Community/ Corrections 3.0 CSU
ADJU 74 Vice Control 3.0
CORS 30 Ethnic Relations in Corrections 3.0
CORS 40 Crime and Delinquency 3.0
CORS 45 The Violent Offender 3.0

Total Units 30.0

Recommended Electives:
PE-F 50 Physical Skills Preparation for Law Enforcement and Fire Science
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

Legal Office Specialist
Office Technology Department
Certificate 60519
This program is intended to prepare students for employment as entry-level legal office assistants, legal secretaries, administrative assistants, legal office managers, or other office support staff where legal knowledge is required. Training in a variety of computer and clerical skills, and law office procedures is emphasized. Students desiring a Bachelor’s Degree (transfer program) should consult with a counselor or advisor to discuss transferability of courses.

Requirements for the Certificate
Required courses:
BUSL 30 Introduction to Paralegal/Legal Fundamentals 3.0 CSU
BUSL 35A Law Office Procedures 3.0
BUSL 35B Automated Law Office Procedures 3.0
BUSO 5 Business English 3.0
BUSO 25 Business Communications 3.0 CSU
COMP 1 Computer Keyboarding 4.0 CSU
COMP 2 Intermediate Computer Keyboarding 4.0
COMP 11 Internet Research for Business 2.0 CSU
COMP 12 Office Computer Applications, or 4.0 CSU, UC
CISB 15 Microcomputer Applications 4.0 CSU, UC
COMP 20 Microsoft Word, or 4.0
COMP 120A Microsoft Word – Level 1, and 1.0
COMP 120B Microsoft Word-Level 2 1.0
COMP 28 Office Management Skills 3.0
COMP 29 Computer Keyboarding 0.5
Skill Building
COMP 68 Transcription Techniques 3.0

Total Units 37.5 - 39.5

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

Livestock Management
Agricultural Sciences Department
Certificate 60103
This certificate program is designed to give students basic skills in livestock management for employment opportunities on farms, ranches, and agriculture sales and services. All courses are applicable for degree requirements.

Requirements for the Certificate
Required courses:
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 34 Livestock Judging and Selection 2.0 CSU, UC
AGLI 96 Animal Sanitation and Disease Control 3.0 CSU

PLUS
Select six (6) units from:
AGLI 97 Meat Science and Technology 3.0
AGLI 200 Veterinary Medical Assistant 3.0
AGLI 35 Animal Behavior and Training 3.0
AGLI 36 Equine Science 3.0
AGLI 40 Rabbitry 3.0
AGLI 45 Aquaculture 3.0

Total Units 42.0

LVN 30-Unit Option – Career Mobility Track
Nursing Department
Certificate 61202
In keeping with Section 1429 of the Board of Registered Nursing Rules and Regulations, completion of this certificate program entitles the student to apply for examination for licensure as a Registered Nurse in the State of California. This option is specifically designed for California licensees. Other states do not have this provision in their laws; therefore, endorsement for licensure may not be granted.

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

Requirements for the Certificate
Required courses:
NURS 5 Psychiatric Nursing 3.0 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 15.0

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

Eligibility Appointment:
1. Once a student has completed all course prerequisites, they may request an appointment with a counselor or educational advisor.
2. Students who have completed coursework at other colleges must bring the following information to their eligibility appointment:
   a. Official transcripts of all college work completed at all colleges;
   b. If the prerequisite courses were completed at another college, a course description and a copy of the course syllabus;
   c. Students completing college coursework outside of the United States will need to have their transcripts evaluated by an approved international transcript evaluation agency and must bring the final evaluation to their appointment (students may be able to obtain a list of agencies from the Admissions & Records Office);
   d. 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 - November 30
March 1 - May 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.

Note: Final selection of students for each nursing class will be determined by lottery.

All Applicants are Required to meet the Essential Functions for Success in the Nursing Program:

Physical Demands
- Perform prolonged, extensive, or considerable standing/walking, lifting positioning, pushing, and/or transferring patients
- Possess the ability to perform fine motor movements with hands and fingers
- Possess the ability for extremely heavy effort (lift/carry 50 lbs. or more)
- 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 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 judgment/action which could result in death of a patient
- Exposed to products containing latex

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

Machine Operator
AirCraft Maintenance Technology & Manufacturing Department
Certificate 60956

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>
<th>School</th>
</tr>
</thead>
<tbody>
<tr>
<td>MFG 11 Manual and CNC Manufacturing Essentials</td>
<td>2.0</td>
<td>CSU</td>
</tr>
<tr>
<td>MFG 12 Advanced Manufacturing Processes</td>
<td>2.0</td>
<td>CSU</td>
</tr>
<tr>
<td>MFG 58 Blueprint Reading for Manufacturing</td>
<td>2.0</td>
<td></td>
</tr>
<tr>
<td>MFG 70 Technical Mathematics — Manufacturing Applications</td>
<td>2.0</td>
<td>CSU</td>
</tr>
<tr>
<td>MFG 85 Manual CNC (Computerized Numerical Control) Operations</td>
<td>2.0</td>
<td>CSU</td>
</tr>
</tbody>
</table>

PLUS
Select one (1) course from:
<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
<th>School</th>
</tr>
</thead>
<tbody>
<tr>
<td>MFG 38 MasterCAM I</td>
<td>2.0</td>
<td>CSU</td>
</tr>
<tr>
<td>MFG 39 SurfCAM I</td>
<td>2.0</td>
<td>CSU</td>
</tr>
</tbody>
</table>

Total Units 12.0

Manufacturing Technology
AirCraft Maintenance Technology & Manufacturing Department
Certificate 60918

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

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
<th>School</th>
</tr>
</thead>
<tbody>
<tr>
<td>MFG 11 Manufacturing Processes I</td>
<td>2.0</td>
<td>CSU</td>
</tr>
<tr>
<td>MFG 12 Manufacturing Processes II</td>
<td>2.0</td>
<td>CSU</td>
</tr>
<tr>
<td>MFG 15 AutoCAD 2D</td>
<td>2.0</td>
<td></td>
</tr>
<tr>
<td>MFG 17 3-D CAD — Mechanical Modeling</td>
<td>2.0</td>
<td></td>
</tr>
<tr>
<td>MFG 19 Parametric Solid Modeling for Manufacturing</td>
<td>2.0</td>
<td></td>
</tr>
<tr>
<td>MFG 38 MasterCAM I</td>
<td>2.0</td>
<td>CSU</td>
</tr>
<tr>
<td>MFG 38B Advanced MasterCAM</td>
<td>2.0</td>
<td>CSU</td>
</tr>
<tr>
<td>MFG 38C MasterCAM Solids</td>
<td>2.0</td>
<td>CSU</td>
</tr>
<tr>
<td>MFG 39 SurfCAM I</td>
<td>2.0</td>
<td>CSU</td>
</tr>
<tr>
<td>MFG 39B SurfCAM II</td>
<td>2.0</td>
<td>CSU</td>
</tr>
<tr>
<td>MFG 58 Blueprint Reading for Manufacturing</td>
<td>2.0</td>
<td></td>
</tr>
</tbody>
</table>

MasterCAM
AirCraft Maintenance Technology & Manufacturing Department
Certificate 60927

This certificate provides a strong background in MasterCAM 2-0, 3-0, and Solids packages along with the necessary machine shop theory and practice to input sound functional data into the CAD/CAM system.

Requirements for the Certificate

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
<th>School</th>
</tr>
</thead>
<tbody>
<tr>
<td>MFG 11 Manufacturing Processes I</td>
<td>2.0</td>
<td>CSU</td>
</tr>
<tr>
<td>MFG 38 MasterCAM I</td>
<td>2.0</td>
<td>CSU</td>
</tr>
<tr>
<td>MFG 38B Advanced MasterCAM</td>
<td>2.0</td>
<td>CSU</td>
</tr>
<tr>
<td>MFG 38C MasterCAM Solids</td>
<td>2.0</td>
<td>CSU</td>
</tr>
</tbody>
</table>
## Medical Office Specialist
### Office Technology Department
**Certificate 60523**

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

### Requirements for the Certificate
#### Required courses:
- **BUSA 72** Bookkeeping – Accounting 5.0
- **BUSA 5** Business English 3.0
- **BUSA 25** Business Communications 3.0 CSU
- **COMP 1** Computer Keyboarding 4.0 CSU
- **COMP 2** Intermediate Computer Keyboarding 4.0
- **COMP 12** Office Computer Applications, or 4.0 CSU, UC
- **CISB 15** Microcomputer Applications 4.0 CSU, UC
- **COMP 18** Data Entry 3.0
- **COMP 20** Microsoft Word, or 4.0
- **COMP 120A** Microsoft Word – Level 1, and 1.0
- **COMP 120B** Microsoft Word-Level 2 1.0
- **COMP 28** Office Management Skills 3.0
- **COMP 68** Transcription Techniques 3.0
- **MEDI 90** Medical Terminology 3.0 CSU

**Total Units 37.0 - 39.0**

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

## Mental Health Technology – Psychiatric Technician
### Mental Health Department
**Certificate 61209**

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

### Requirements for the Certificate
#### Required courses:
- **MENT 40** Introduction to Interviewing and Counseling 3.0
- **PSYC 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 58D** Advanced Medical-Surgical Nursing and Pharmacology for Psychiatric Technicians 4.0
- **MENT 58L** Advanced Medical-Surgical Nursing for Psychiatric Technicians 1.5
- **MENT 70** Introduction to Psychiatric Technology 1.5
- **MENT 70L** Introduction to Psychiatric Technology Clinical Technicians 2.0
- **MENT 72** Nursing Care of the Developmentally Disabled Person 7.0
- **MENT 72L** Nursing Care of the Developmentally Disabled Person – Clinical 5.0
- **MENT 73L** Psychiatric Nursing for Psychiatric Technicians Clinical 5.0
- **MENT 73T** Psychiatric Nursing for Psychiatric Technicians 6.0
- **PSYC 1A** Introduction to Psychology 3.0 CSU, UC

**Total Units 51.0**

### Special Information:
To remain in the program, students must maintain a “C” or better grade in all courses.

The student will qualify to take the California State Board Examination upon completion of all the above courses.

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

a. Be a high school graduate or equivalent. (All students who have taken coursework outside of the United States must have their transcript evaluated. Foreign transcripts will not be accepted without the evaluation.)

b. Be 18 years of age.

c. File a college application and be accepted as a student at Mt. San Antonio College.

d. Submit an application for the Mental Health/Psychiatric/Technician Program to the Technology and Health Division Office (909) 594-5611, ext. 4750. All applications are dated upon receipt in the Technology and Health Division Office. A program begins each fall and spring semester.

e. Take the required English Placement Test (AWE). Eligibility for ENGL 66 is advised if you have already taken a college placement exam within the past two years at another school, arrange to have your test scores forwarded to the Technology and Health Division Office. (If you were tested at Mt. San Antonio College, the office will obtain the test scores as long as an “Application for Admission” is on file with the Admissions and Records Office.) Testing is administered by the Assessment Center, located in the Student Services Center. Arrangements should be made with the Assessment Center to schedule a day and time to take the English Placement Test, if required. The Assessment Center is open Monday through Friday. You may contact them at (909) 594-5611, ext. 4265.

f. Forward two official transcripts of all coursework completed (high school, nursing school, and other than Mt. San Antonio College courses.) One transcript must be sent to the Technology and Health Division Office and the other to the Admissions and Records Office.

g. For students who possess a college degree, the English Placement Test is not required. However, it will be necessary for a student to obtain two official copies of the college transcript showing the degree issued. One transcript must be sent to the Technology and Health Division Office and the other to the Admissions and Records Office.

Note: Concerning Entrance Requirements ‘e’ and ‘f’, if the course(s) were taken and/or the degree obtained at Mt. San Antonio College, it is not necessary to request transcripts.

Indicate in the mailing address the program for which your transcript is being sent to the Technology and Health Division Office.

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

h. A physical examination, including specific immunizations, and consent/ disclaimer for Hepatitis A/B vaccine is required of all candidates prior to beginning classes.

Students must provide proof that he/she does not have Tuberculosis. These requirements are in accordance with the healthcare agency policy that insures that students are in good health and free from communicable disease and able to perform their training functions. Drug testing may also be required as part of this physical examination. Proof of high school graduation and malpractice insurance are required of all candidates upon acceptance.

i. Certain convictions may prevent a candidate from being licensed as a Psychiatric Technician.

j. All students may be required to complete 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.

## Microcomputer Productivity Software
### Computer Information Systems Department
**Certificate 60702**

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, or 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 11** Database Management – Microcomputers 4.0 CSU
- **CISW 11** The Internet 4.0 CSU
- **COMP 50** Desktop Presentations using PowerPoint 4.0 CSU

**Total Units 22.0 - 24.0**

## Nursery Management
### Agricultural Sciences Department
**Certificate 60107**

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
### Nutrition Program Assistant – Level I

**Consumer Science and Design Technologies Certificate 61331**

This certificate prepares students to work for community agencies and programs as nutrition assistants.

#### Requirements for the Certificate

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
<th>Institution</th>
</tr>
</thead>
<tbody>
<tr>
<td>AGOR 24 Integrated Pest Management</td>
<td>3.0</td>
<td>CSU</td>
</tr>
<tr>
<td>AGOR 29 Ornamental Plants – Herbaceous</td>
<td>3.0</td>
<td>CSU, UC</td>
</tr>
<tr>
<td>AGOR 30 Ornamental Plants – Trees and Woody Shrubs</td>
<td>3.0</td>
<td>CSU, UC</td>
</tr>
<tr>
<td>AGOR 32 Landscaping and Nursery Management</td>
<td>3.0</td>
<td>CSU</td>
</tr>
<tr>
<td>AGOR 39 Turf Grass Production and Management</td>
<td>3.0</td>
<td>CSU</td>
</tr>
<tr>
<td>AGOR 62 Landscape Irrigation – Design and Installation</td>
<td>3.0</td>
<td>CSU</td>
</tr>
<tr>
<td>AGOR 64 Landscape Irrigation – Drip and Low Volume</td>
<td>3.0</td>
<td>CSU</td>
</tr>
</tbody>
</table>

**Total Units: 27.0**

#### Nutrition Program Assistant – Level II: Weight Management Program Emphasis

**Child Development Department Certificate 61336**

This certificate prepares students to work as nutrition assistants in the public or private sector. Coursework is designed to provide the basic skills and knowledge necessary for entry-level positions in a variety of businesses, agencies, and programs that focus on weight management.

#### Requirements for the Certificate

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
<th>Institution</th>
</tr>
</thead>
<tbody>
<tr>
<td>HRM 52 Food Safety and Sanitation</td>
<td>1.5</td>
<td>CSU</td>
</tr>
<tr>
<td>NF 20 Principles of Foods with Lab</td>
<td>3.0</td>
<td>CSU</td>
</tr>
<tr>
<td>NF 25 Essentials of Nutrition, or Honor</td>
<td>3.0</td>
<td>CSU, UC</td>
</tr>
<tr>
<td>NF 25H Essentials of Nutrition – Honor</td>
<td>3.0</td>
<td>CSU, UC</td>
</tr>
<tr>
<td>NF 10 Nutrition for Personal Health and Wellness</td>
<td>3.0</td>
<td>CSU</td>
</tr>
<tr>
<td>NF 28 Cultural and Ethnic Foods</td>
<td>3.0</td>
<td>CSU, UC</td>
</tr>
</tbody>
</table>

**Plus the following courses:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
<th>Institution</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHLD 10 Child Growth and Development</td>
<td>3.0</td>
<td>CSU, UC</td>
</tr>
<tr>
<td>CHLD 64 Health, Safety and Nutrition of Young Children</td>
<td>3.0</td>
<td>CSU</td>
</tr>
<tr>
<td>CHLD 83 Current Issues in Child Development</td>
<td>1.0</td>
<td>CSU</td>
</tr>
</tbody>
</table>

**Total Units: 17.5**

### Nutrition Program Assistant – Level II: Child Program Emphasis

**Child Development Department Certificate 61335**

This certificate prepares students to work for community agencies such as the Federal Supplemental Nutrition Program for Women, Infants, and Children (WIC), Head Start, and School Food Service as nutrition assistants. Coursework is designed to provide basic skills and knowledge necessary to entry-level positions in nutrition programs that serve children.

#### Requirements for the Certificate

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
<th>Institution</th>
</tr>
</thead>
<tbody>
<tr>
<td>AGOR 24 Integrated Pest Management</td>
<td>3.0</td>
<td>CSU</td>
</tr>
<tr>
<td>AGOR 29 Ornamental Plants – Herbaceous</td>
<td>3.0</td>
<td>CSU, UC</td>
</tr>
<tr>
<td>AGOR 30 Ornamental Plants – Trees and Woody Shrubs</td>
<td>3.0</td>
<td>CSU, UC</td>
</tr>
<tr>
<td>AGOR 32 Landscaping and Nursery Management</td>
<td>3.0</td>
<td>CSU</td>
</tr>
<tr>
<td>AGOR 39 Turf Grass Production and Management</td>
<td>3.0</td>
<td>CSU</td>
</tr>
<tr>
<td>AGOR 62 Landscape Irrigation – Design and Installation</td>
<td>3.0</td>
<td>CSU</td>
</tr>
<tr>
<td>AGOR 64 Landscape Irrigation – Drip and Low Volume</td>
<td>3.0</td>
<td>CSU</td>
</tr>
</tbody>
</table>

**Total Units: 10.5**

### Park Management

**Agricultural Sciences Department Certificate 60116**

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

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
<th>Institution</th>
</tr>
</thead>
<tbody>
<tr>
<td>AGOR 24 Integrated Pest Management</td>
<td>3.0</td>
<td>CSU</td>
</tr>
<tr>
<td>AGOR 29 Ornamental Plants – Herbaceous</td>
<td>3.0</td>
<td>CSU, UC</td>
</tr>
<tr>
<td>AGOR 30 Ornamental Plants – Trees and Woody Shrubs</td>
<td>3.0</td>
<td>CSU, UC</td>
</tr>
<tr>
<td>AGOR 32 Landscaping and Nursery Management</td>
<td>3.0</td>
<td>CSU</td>
</tr>
<tr>
<td>AGOR 39 Turf Grass Production and Management</td>
<td>3.0</td>
<td>CSU</td>
</tr>
<tr>
<td>AGOR 62 Landscape Irrigation – Design and Installation</td>
<td>3.0</td>
<td>CSU</td>
</tr>
<tr>
<td>AGOR 64 Landscape Irrigation – Drip and Low Volume</td>
<td>3.0</td>
<td>CSU</td>
</tr>
</tbody>
</table>

**Total Units: 17.5**

### Pet Science

**Agricultural Sciences Department Certificate 60104**

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

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
<th>Institution</th>
</tr>
</thead>
<tbody>
<tr>
<td>AGAB 20 Microcomputer Applications</td>
<td>3.0</td>
<td>CSU, UC</td>
</tr>
<tr>
<td>AGAN 1 Animal Science</td>
<td>3.0</td>
<td>CSU, UC</td>
</tr>
<tr>
<td>AGAN 2 Animal Nutrition</td>
<td>3.0</td>
<td>CSU, UC</td>
</tr>
<tr>
<td>AGAN 51 Animal Handling and Restraint</td>
<td>3.0</td>
<td>CSU</td>
</tr>
<tr>
<td>AGAN 94 Animal Breeding</td>
<td>3.0</td>
<td>CSU</td>
</tr>
<tr>
<td>AGLI 96 Animal Sanitation and Disease Control</td>
<td>3.0</td>
<td>CSU</td>
</tr>
<tr>
<td>AGPE 70 Pet Shop Management</td>
<td>3.0</td>
<td>CSU</td>
</tr>
<tr>
<td>AGPE 71 Canine Management</td>
<td>3.0</td>
<td>CSU</td>
</tr>
<tr>
<td>AGPE 72 Feline Management</td>
<td>3.0</td>
<td>CSU</td>
</tr>
<tr>
<td>AGPE 73 Tropical and Coldwater Fish Management</td>
<td>2.0</td>
<td>CSU</td>
</tr>
<tr>
<td>AGPE 74 Reptile Management</td>
<td>2.0</td>
<td>CSU</td>
</tr>
<tr>
<td>AGPE 76 Aviculture – Cage and Aviary Birds</td>
<td>3.0</td>
<td>CSU</td>
</tr>
<tr>
<td>BUSM 66 Small Business Management</td>
<td>3.0</td>
<td>CSU</td>
</tr>
</tbody>
</table>

**Total Units: 37.0**

### Photography

**Photographics Department Certificate 61002**

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

#### Requirements for the Certificate

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
<th>Institution</th>
</tr>
</thead>
<tbody>
<tr>
<td>GRAP 10 Photo Editing with Photoshop</td>
<td>3.0</td>
<td>CSU, UC</td>
</tr>
<tr>
<td>PHOT 10 Basic Digital and Film Photography</td>
<td>3.0</td>
<td>CSU, UC</td>
</tr>
<tr>
<td>PHOT 11 Advanced Professional Photography</td>
<td>4.0</td>
<td>CSU</td>
</tr>
<tr>
<td>PHOT 12 Photographic Alternatives, or</td>
<td>3.0</td>
<td>CSU, UC</td>
</tr>
<tr>
<td>PHOT 21 Exploring Color Photography</td>
<td>3.0</td>
<td>CSU</td>
</tr>
<tr>
<td>PHOT 16 Fashion Photography, or</td>
<td>3.0</td>
<td>CSU</td>
</tr>
<tr>
<td>PHOT 18 Portraiture and Wedding Photography</td>
<td>3.0</td>
<td>CSU</td>
</tr>
</tbody>
</table>

**Total Units: 37.0**
Programs of Study Leading to a Certificate

PHOT 17  Photocommunication  3.0
PHOT 20  Color Photography  3.0
PHOT 28  Photography Portfolio  2.0
PHOT 30  Commercial and Illustrative Photography  3.0

**Total Units 27.0**

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

---

**Programming In C++**
Computer Information Systems Department Certificate 60704

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

**Requirements for the Certificate**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
<th>School/Agency</th>
</tr>
</thead>
<tbody>
<tr>
<td>CISB 11 Computer Information Systems</td>
<td>3.0</td>
<td>CSU, UC</td>
</tr>
<tr>
<td>CISD 11 Database Management – Microcomputers</td>
<td>4.0</td>
<td>CSU</td>
</tr>
<tr>
<td>CISM 11 Systems Analysis and Design</td>
<td>3.5</td>
<td>CSU, UC</td>
</tr>
<tr>
<td>CISM 21 Client/Server Architecture</td>
<td>4.0</td>
<td></td>
</tr>
<tr>
<td>CISP 21 Programming in Java</td>
<td>4.0</td>
<td>CSU, UC</td>
</tr>
<tr>
<td>CISP 21 Windows Operating System</td>
<td>4.0</td>
<td>CSU</td>
</tr>
<tr>
<td>CISP 31 Programming in C++</td>
<td>4.0</td>
<td>CSU, UC</td>
</tr>
<tr>
<td>CISP 34 Advanced C++ Programming</td>
<td>4.0</td>
<td>CSU, UC</td>
</tr>
</tbody>
</table>

**Total Units 27.0**

---

**Programming In Visual Basic**
Computer Information Systems Department Certificate 60709

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**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
<th>School/Agency</th>
</tr>
</thead>
<tbody>
<tr>
<td>CISB 11 Computer Information Systems</td>
<td>3.5</td>
<td>CSU, UC</td>
</tr>
<tr>
<td>CISD 11 Database Management – Microcomputers</td>
<td>4.0</td>
<td>CSU</td>
</tr>
<tr>
<td>CISP 21 Windows Operating System</td>
<td>4.0</td>
<td>CSU</td>
</tr>
<tr>
<td>CISP 31 Programming in C++</td>
<td>4.0</td>
<td>CSU, UC</td>
</tr>
<tr>
<td>CISP 34 Advanced C++ Programming</td>
<td>4.0</td>
<td>CSU, UC</td>
</tr>
</tbody>
</table>

**Total Units 33.0 - 34.0**

---

**Radio Broadcasting: Behind the Scenes**
Art Department Certificate 60066

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

**Requirements for the Certificate**

**Required courses:**
- R-TV 01 Introduction to Broadcasting  3.0  CSU
- R-TV 09 Broadcast Sales and Promotion  3.0
- R-TV 10 Radio Management and Programming  3.0
- R-TV 11A Beginning Radio Production  3.0  CSU
- R-TV 11B Advanced Radio Production  3.0  CSU
- R-TV 15 Broadcast Business Practices  3.0
- 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 Entertainment Industry Internship – KSAK Radio, or
- R-TV 97D Entertainment Industry Internship – KSAK Radio  2.0

**PLUS**
Select nine (9) units from:
- R-TV 03 Sportscasting and Reporting  1.5
- R-TV 05 Radio-TV Newswriting  3.0
- R-TV 06 Broadcast Traffic Reporting  1.5
- R-TV 08 KSAK Radio Studio Operations  2.0  CSU
- R-TV 12 Commercial Copywriting  3.0
- R-TV 15 Broadcast Business Practices  3.0
- R-TV 26 Legal Issues in Entertainment Law  3.0
- R-TV 27 Radio Drama  3.0

**Total Units 33.0 - 34.0**

---

**Programs of Study Leading to a Certificate**

**Radio Broadcasting: On the Air**
Art Department Certificate 60065

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 01 Introduction to Broadcasting  3.0  CSU
- R-TV 02 Radio and Television Announcing, or
- R-TV 02A On-Air Personality Development – Spanish Market  3.0
- R-TV 05 Radio-TV Newswriting  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 Industry Seminar  1.0
- R-TV 97B Radio/Entertainment Industry Internship  1.0
- R-TV 97C Entertainment Industry Internship – KSAK Radio, or
- R-TV 97D Entertainment Industry Internship – KSAK Radio  2.0

**PLUS**
Select one (1) course from:
- BUSA 11 Fundamentals of Accounting  3.0
- BUSL 18 Business Law  3.0  CSU, UC
- BUSR 53 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

**Total Units 18.0 - 19.0**

---

**Real Estate**
Business Administration Department Certificate 60513

**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, or
- BUSR 52D Real Estate Practice Work Experience  4.0
- BUSR 53 Real Estate Finance  3.0
- BUSR 54 Real Estate Appraisal  3.0

**PLUS**
Select one (1) course from:
- BUSA 11 Fundamentals of Accounting  3.0
- BUSO 25 Business Communications  3.0  CSU
- BUSR 52 Real Estate Practice  3.0
- BUSR 55 Real Estate Economics  3.0
- CISP 15 Microcomputer Applications  4.0  CSU, UC

**Total Units 33.0 - 34.0**

---

**Real Estate Appraisal**
Business Administration Department Certificate 60512

**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, or
- BUSR 52D Real Estate Practice Work Experience  4.0
- BUSR 53 Real Estate Finance  3.0
- BUSR 54 Real Estate Appraisal  3.0

**PLUS**
Select one (1) course from:
- BUSA 11 Fundamentals of Accounting  3.0
- BUSO 25 Business Communications  3.0  CSU
- BUSR 52 Real Estate Practice  3.0
- BUSR 55 Real Estate Economics  3.0

**Total Units 18.0 - 19.0**
Sign Language/Interpreting
Sign Language Department Certificate 60801

Upon completion of this program, the graduate will be functional in sign language and will be able to interpret in a variety of situations. The program provides an overview of the Deaf community, careers working with deaf people, teaches American Sign Language, offers specific interpreting courses, and includes training in the ethics and practical approaches that must be understood by a practicing interpreter.

To remain in the program, students must maintain a “C” or better grade in all courses.

Requirements for the Certificate

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>SIGN 80</td>
<td>4.0</td>
<td>American Sign Language I</td>
</tr>
<tr>
<td>SIGN 81</td>
<td>4.0</td>
<td>American Sign Language II</td>
</tr>
<tr>
<td>SIGN 82A</td>
<td>4.0</td>
<td>American Sign Language III</td>
</tr>
<tr>
<td>SIGN 82B</td>
<td>4.0</td>
<td>American Sign Language IV</td>
</tr>
<tr>
<td>SIGN 82C</td>
<td>4.0</td>
<td>American Sign Language V</td>
</tr>
<tr>
<td>SIGN 83</td>
<td>3.0</td>
<td>Deaf Perspectives</td>
</tr>
<tr>
<td>SIGN 85</td>
<td>3.0</td>
<td>American Deaf Culture</td>
</tr>
<tr>
<td>SIGN 86</td>
<td>3.0</td>
<td>American Sign Language Structure</td>
</tr>
<tr>
<td>SIGN 87</td>
<td>3.0</td>
<td>Translation: American Sign Language/English</td>
</tr>
<tr>
<td>SIGN 88</td>
<td>3.0</td>
<td>Principles of Sign Language Interpreting</td>
</tr>
<tr>
<td>SIGN 88A</td>
<td>4.0</td>
<td>Interpreting</td>
</tr>
<tr>
<td>SIGN 88B</td>
<td>4.0</td>
<td>Advanced Interpreting</td>
</tr>
<tr>
<td>SIGN 88L</td>
<td>1.0</td>
<td>Practicum</td>
</tr>
<tr>
<td>SPCH 1A</td>
<td>3.0</td>
<td>Public Speaking, or</td>
</tr>
<tr>
<td>SPCH 1AH</td>
<td>3.0</td>
<td>Public Speaking – Honors</td>
</tr>
</tbody>
</table>

Total Units 47.0

Recommended Electives:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>SIGN 89</td>
<td>3.0</td>
<td>Finger Spelling</td>
</tr>
<tr>
<td>SIGN 92</td>
<td>3.0</td>
<td>Oral Interpreting</td>
</tr>
<tr>
<td>SIGN 99</td>
<td>3.0</td>
<td>Special Projects in Sign Language/Interpreting</td>
</tr>
</tbody>
</table>

Sports Turf Management
Agricultural Sciences Department Certificate 60112

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

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 50</td>
<td>3.0</td>
<td>Pre-Algebra</td>
</tr>
</tbody>
</table>

Total Units 31.0 - 33.0
### Programs of Study Leading to a Certificate

#### Requirements for the Certificate

**Required courses:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARTD 15A</td>
<td>Drawing: Beginning</td>
<td>3.0</td>
</tr>
<tr>
<td>FASH 10</td>
<td>Clothing Fundamentals</td>
<td>3.0</td>
</tr>
<tr>
<td>FASH 17</td>
<td>Textiles</td>
<td>3.0</td>
</tr>
<tr>
<td>FASH 61</td>
<td>History of Costume and Fashion</td>
<td>3.0</td>
</tr>
<tr>
<td>THTR 9</td>
<td>Introduction to Theatre Arts</td>
<td>3.0</td>
</tr>
<tr>
<td>THTR 19</td>
<td>Theatrical Costuming</td>
<td>3.0</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>ARTD 20</td>
<td>Design: Two Dimensional</td>
<td>3.0</td>
</tr>
<tr>
<td>THTR 14</td>
<td>Stagecraft</td>
<td>3.0</td>
</tr>
<tr>
<td>THTR 15</td>
<td>Play Rehearsal and Performance</td>
<td>2.0</td>
</tr>
<tr>
<td>THTR 16</td>
<td>Theatrical Make-Up</td>
<td>2.0</td>
</tr>
<tr>
<td>THTR 18</td>
<td>Technical Theater Practicum</td>
<td>1.0</td>
</tr>
</tbody>
</table>

**Total Units** 24.0

### Water Technology

#### Air Conditioning, Water & Welding Technologies Certificate 60921

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:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>WATR 60</td>
<td>Introduction to Water Systems</td>
<td>3.0</td>
</tr>
<tr>
<td>WATR 61</td>
<td>Water Treatment</td>
<td>3.0</td>
</tr>
<tr>
<td>WATR 62</td>
<td>Water Distribution</td>
<td>3.0</td>
</tr>
<tr>
<td>WATR 63</td>
<td>Cross Connection Control – Certified Tester</td>
<td>3.0</td>
</tr>
<tr>
<td>WATR 64</td>
<td>Cross Connection Control – Certified Specialist</td>
<td>3.0</td>
</tr>
<tr>
<td>WATR 65</td>
<td>Water Hydraulics and Instrumentation</td>
<td>3.0</td>
</tr>
</tbody>
</table>

**Total Units** 18.0

### Web Page Design

#### Art Department Certificate 60618

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

#### Requirements for the Certificate

**Required courses:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANIM 175</td>
<td>Web Animation with Flash</td>
<td>3.0</td>
</tr>
<tr>
<td>ARTC 60</td>
<td>Graphic Design: Lettering and Typography</td>
<td>3.0</td>
</tr>
<tr>
<td>ARTC 70</td>
<td>Computer Graphics: Introduction</td>
<td>3.0</td>
</tr>
<tr>
<td>ARTC 74</td>
<td>Computer Graphics: Web Page Design</td>
<td>3.0</td>
</tr>
<tr>
<td>ARTC 171</td>
<td>Computer Graphics: Layout and Design with QuarkXpress</td>
<td>3.0</td>
</tr>
</tbody>
</table>

**Total Units** 24.0

### Welding

#### Air Conditioning, Water & Welding Technologies Certificate 60919

This program is designed to prepare the student for employment in the broad field of welding and

1. leads to occupations in manufacturing and repair; and
2. helps prepare the student for positions in supervision.

Courses in the welding curriculum prepare students for welding certificates. The College is a testing agency for the City of Los Angeles, and is authorized to administer the performance test for the Structural Welding certificate. There is a $50 charge for students and $60 for non-students to take this test. Topics of the written portion of the test which is administered by the City are reviewed in various welding courses offered by the College.

#### Requirements for the Certificate

**Required courses:**

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

**Total Units** 8.0

**Note:** Any higher level welding courses may be substituted for WELD 70A.

### Recommended Electives:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MFG 70</td>
<td>Technical Mathematics – Manufacturing Applications</td>
<td></td>
</tr>
<tr>
<td>WELD 60</td>
<td>Print Reading and Computation for Welders</td>
<td></td>
</tr>
<tr>
<td>WELD 70C</td>
<td>Certification for Welders</td>
<td></td>
</tr>
</tbody>
</table>
**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 or Advising 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 in the Advising Center 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 Advising Center. All of the CSU and UC catalogs are available in the Advising 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>Social Ecology</td>
</tr>
<tr>
<td>Art History</td>
<td>Behavioral Sciences</td>
<td>Sociology</td>
</tr>
<tr>
<td>Classics</td>
<td>Child Development</td>
<td>Urban Studies</td>
</tr>
<tr>
<td>Comparative Cultures</td>
<td>Cultural Geography</td>
<td>Women’s Studies</td>
</tr>
<tr>
<td>Creative Studies</td>
<td>Economics</td>
<td></td>
</tr>
<tr>
<td>Drama/Theater Arts</td>
<td>Ethnic and Area Studies</td>
<td></td>
</tr>
<tr>
<td>English and Literature</td>
<td>Asian Studies</td>
<td></td>
</tr>
<tr>
<td>Foreign Languages and Literatures</td>
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THE CALIFORNIA STATE UNIVERSITY

Lower Division Transfer Admission Requirements

Many campuses must restrict enrollment of lower division transfer students due to heavy enrollment pressure. California residents are eligible for 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.

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 2007-2008 California State University (CSU) undergraduate application.
CALIFORNIA STATE UNIVERSITY GENERAL EDUCATION REQUIREMENTS 2007-08

The requirements listed below are for the 2007-2008 academic year and are based upon information available at the time of catalog publication. Students may contact the Advising 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 2007 must follow 2007-2008 CSU GE-Breadth requirements. Courses are approved for the academic year in which they were completed. Students may obtain a copy from the Advising Center or Counseling Center. For the most recent version of the CSU GE, come to the Advising Center located in Student Services, upper level.

Area A

The English Language and Critical Thinking (9 units)
Select one course from each group:
A-1: Oral Communication:
SPCH 1A Public Speaking, or
SPCH 1AH Public Speaking – Honors
A-2: Written Communication:
ENGL 1A Freshman Composition
ENGL 1AH Freshman Composition – Honors

Area B

The Physical Universe & Life (9 units minimum): Select one course from each group. Also, one lab (+) course must be included in one of the science groups.
B-1: Physical Science – Select at least one course from the following list:
ASTR 5 Introduction to Astronomy
+ASTR 5L Astronomical Observing Laboratory
ASTR 7 Geology of the Solar System
ASTR 8 Introduction to Stars, Galaxies, and the Universe
+CHEM 10 Chemistry for Allied Health Majors
+CHEM 20 Introductory Organic and Biochemistry
+CHEM 40 Introduction to General Chemistry
+CHEM 50 General Chemistry I
+CHEM 50H General Chemistry I – Honors

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”:
C-1: Arts
AHIS 1 Understanding the Visual Arts, or
ARTB 1 Understanding the Visual Arts

AHIS 1H Understanding the Visual Arts – Honors
AHIS 2 Topics in Visual Art and Culture
AHIS 2H Topics in Visual Art and Culture – Honors
AHIS 3 History of Women and Gender in Art
AHIS 3H History of Women and Gender in Art – Honors
AHIS 4 History of Western Art: Prehistoric Through Gothic
AHIS 4H History of Western Art: Prehistoric Through Gothic – Honors
AHIS 5 History of Western Art: Renaissance Through Modern
AHIS 5H History of Western Art: Renaissance Through Modern – Honors
AHIS 6 History of Modern Art
AHIS 6H History of Modern Art – Honors
AHIS 9 History of Asian Art
AHIS 10 A History of Greek and Roman Art and Architecture
AHIS 11 History of African, Oceanic and Native American Art
AHIS 12 History of Precolombian Art
AHIS 12H History of Precolombian Art – Honors
ARCH 31 World Architecture I
ARCH 32 World Architecture II
ARTB 14 Basic Studio Arts
ARTD 15A Drawing: Beginning
ARTD 20 Design: Two Dimensional
ARTD 25A Painting: Beginning
ARTG 20 Art, Artists and Society
ARTS 22 Design: Three Dimensional
ARTS 30A Ceramics: Beginning
ARTS 40A Sculpture: Beginning
DN-T 20 History and Appreciation of Dance
ID 180 History of Interior Architecture and Fundamentals I
MUS 7 Fundamentals of Music
MUS 11A Music Literature Survey
MUS 11B Music Literature Survey
It is recommended that you use one of the options below as part of the 9 units required in Area D.

**D-2: Economics**

AGAF 20 Conservation of Natural Resources
BUSC 1AH Principles of Economics – Macroeconomics
BUSC 1B Principles of Economics – Microeconomics

**D-3: Ethnic Studies**

* HIST 30 History of the African American
* HIST 31 History of the African American
* HIST 40 History of the Mexican American
* HIST 44 History of Native Americans
JOUR 107 Race, Culture, Sex, and Mass Media Images
POLI 25 Politics of the Mexican American
POLI 35 African American Politics
SOC 20 Sociology of Ethnic Relations
SOC 20H Sociology of Ethnic Relations – Honors

**C-2: Humanities**

CHIN 1 Elementary Chinese
CHIN 2 Continuing Elementary Chinese
CHIN 3 Intermediate Chinese
CHIN 4 Continuing Intermediate Chinese
ENGL 1B English – Intro to Literary Types
ENGL 18B English – Intro to Literary Types – Honors
FRCH 1 Elementary French
FRCH 2 Continuing Elementary French
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 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 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

**D-4: Gender Studies**

* HIST 36 Women in American History – Beyond the Stereotypes
* PSYC 25 The Psychology of Women

**D-5: Geography**

GEOG 2 Human Geography
GEOG 2H Human Geography – Honors
GEOG 5 World Regional Geography
GEOG 8 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: Social, Political, and Economic Institutions and Behavior; Historical Background**

Required Courses: Minimum 9 units with courses from at least two disciplines (D0 – D9):

**D-0: Sociology & Criminology**

CHIL 1 Child, Family 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 1AH Principles of Economics – Macroeconomics
BUSC 1B Principles of Economics – Microeconomics

**Attention:** It is recommended that you use one of the options below as part of the 9 units required in Area D.

**CSU AMERICAN INSTITUTIONS & U.S. HISTORY GRADUATION REQUIREMENT:**

Option 1: 

HIST 7 (or 7H) + HIST 8 (or 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 8
HIST 30
HIST 36

**American Institutions:**

HIST 7
HIST 8
HIST 30
HIST 36
POLI 1
POLI 25
POLI 26
POLI 35

The two courses from Option 1 or Option 2 may be used as part of the 9 units for AREA D.
### CALIFORNIA STATE UNIVERSITY GENERAL EDUCATION REQUIREMENTS 2007-08

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### 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 2007 and beyond. If a course was completed prior to approval, it cannot be certified for CSU General Education–Breadth requirements.

4. Some majors at CSU do not allow double counting of major preparation courses and general education requirements. Students are advised to consult with a counselor or advisor to determine if courses can be double counted.

5. Some majors require specific general education courses. Students planning to transfer are advised to plan their schedules carefully in order to maintain progress.

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

Transferring to California Colleges and Universities

http://www.ucop.edu/pathways

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 Advising Center or a counselor 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 under the Eligibility in the Local Context (ELC) program — you are eligible to transfer if you have a “C” (2.0) average 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, earning a “C” or better in each required course, and have an overall “C” average 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 a grade point average of at least 2.4; 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

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. Students with Advanced Placement exams which are recognized as equivalent to Mt. SAC courses listed below will obtain credit for IGETC. A minimum grade of "C" is required in each course. (A grade of "C -" is not acceptable.)

Students beginning Fall 2007 must follow 2007-2008 IGETC requirements. Courses are approved for the academic year in which they were completed. Students may obtain a copy of the Advising Center or Counseling Center.

### INTERSEGMENTAL GENERAL EDUCATION TRANSFER CURRICULUM (IGETC) 2007-08

The requirements listed below are for the 2007-2008 academic year and are based upon information available at the time of catalog publication. Students may contact the Advising Center for most current information at (909) 594-5611, ext. 4293.

<table>
<thead>
<tr>
<th>Area 1</th>
<th>English Communication</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group A: English Composition</td>
<td></td>
</tr>
<tr>
<td>ENGL 1A Freshman Composition, or</td>
<td></td>
</tr>
<tr>
<td>ENGL 1AH Freshman Composition – Honors</td>
<td></td>
</tr>
<tr>
<td>Group B: Critical Thinking – Composition</td>
<td></td>
</tr>
<tr>
<td>ENGL 1C Critical Thinking and Writing, or</td>
<td></td>
</tr>
<tr>
<td>ENGL 1CH Critical Thinking and Writing – Honors</td>
<td></td>
</tr>
<tr>
<td>PHIL 9 Critical Thinking and Logical Writing</td>
<td></td>
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<tr>
<td>Group C: Oral Communication</td>
<td></td>
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<tr>
<td>SPCH 1A Public Speaking, or</td>
<td></td>
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<tr>
<td>SPCH 1AH Public Speaking – Honors</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Area 2</th>
<th>Mathematical Concepts and Quantitative Reasoning</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 100 Elementary Statistics</td>
<td></td>
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<tr>
<td>MATH 110H Elementary Statistics – Honors</td>
<td></td>
</tr>
<tr>
<td>MATH 120 Finite Mathematics</td>
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<tr>
<td>MATH 130 College Algebra</td>
<td></td>
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<tr>
<td>MATH 140 Calculus for Business</td>
<td></td>
</tr>
<tr>
<td>MATH 160 Precalculus Mathematics</td>
<td></td>
</tr>
<tr>
<td>MATH 180 Calculus and Analytic Geometry</td>
<td></td>
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<tr>
<td>MATH 181 Calculus and Analytic Geometry</td>
<td></td>
</tr>
<tr>
<td>MATH 280 Calculus and Analytic Geometry</td>
<td></td>
</tr>
<tr>
<td>MATH 285 Linear Algebra and Differential Equations</td>
<td></td>
</tr>
<tr>
<td>PSYC 10 Statistics for the Behavioral Sciences</td>
<td></td>
</tr>
</tbody>
</table>

<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>
<tr>
<td>Arts Courses:</td>
<td></td>
</tr>
<tr>
<td>AHIS 1 Understanding the Visual Arts, or</td>
<td></td>
</tr>
<tr>
<td>ARGT 1 Understanding the Visual Arts</td>
<td></td>
</tr>
<tr>
<td>AHIS 1H Understanding the Visual Arts – Honors</td>
<td></td>
</tr>
<tr>
<td>AHIS 3 History of Women and Gender in Art</td>
<td></td>
</tr>
<tr>
<td>AHIS 3H History of Women and Gender in Art – Honors</td>
<td></td>
</tr>
<tr>
<td>AHIS 4 History of Western Art: Prehistoric through Gothic</td>
<td></td>
</tr>
<tr>
<td>AHIS 4H History of Western Art: Prehistoric through Gothic – Honors</td>
<td></td>
</tr>
<tr>
<td>AHIS 5 History of Western Art: Renaissance through Modern</td>
<td></td>
</tr>
<tr>
<td>AHIS 5H History of Western Art: Renaissance through Modern – Honors</td>
<td></td>
</tr>
<tr>
<td>AHIS 6 History of Modern Art</td>
<td></td>
</tr>
<tr>
<td>AHIS 6H History of Modern Art – Honors</td>
<td></td>
</tr>
<tr>
<td>AHIS 11 History of African, Oceanic, and Native American Art</td>
<td></td>
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<tr>
<td>AHIS 12 History of Precolombian Art</td>
<td></td>
</tr>
<tr>
<td>AHIS 12H History of Precolombian Art – Honors</td>
<td></td>
</tr>
<tr>
<td>ARCH 31 World Architecture I</td>
<td></td>
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<tr>
<td>ARCH 32 World Architecture II</td>
<td></td>
</tr>
<tr>
<td>DN-T 20 History and Appreciation of Dance</td>
<td></td>
</tr>
<tr>
<td>MUS 11A Music Literature Survey</td>
<td></td>
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<tr>
<td>MUS 11B Music Literature Survey</td>
<td></td>
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<tr>
<td>MUS 12 History of Jazz</td>
<td></td>
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<tr>
<td>MUS 13 Introduction to Music Appreciation</td>
<td></td>
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<tr>
<td>MUS 13H Introduction to Music Appreciation – Honors</td>
<td></td>
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<tr>
<td>MUS 14A World Music</td>
<td></td>
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<tr>
<td>MUS 14B American Folk Music</td>
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<tr>
<td>Humanities Courses:</td>
<td></td>
</tr>
<tr>
<td>CHIN 3 Intermediate Chinese</td>
<td></td>
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<tr>
<td>CHIN 4 Continuing Intermediate Chinese</td>
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<tr>
<td>ENGL 1B English – Introduction to Literary Types</td>
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<tr>
<td>ENGL 18H English – Introduction to Literary Types – Honors</td>
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<tr>
<td>FRCH 3 Intermediate French</td>
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<td>FRCH 4 Continuing Intermediate French</td>
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<td>FRCH 5 Advanced French</td>
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<tr>
<td>FRCH 6 Continuing Advanced French</td>
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<tr>
<td>FRCH 60 French Culture through Cinema</td>
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<tr>
<td>GERM 3 Intermediate German</td>
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<tr>
<td>HIST 1 History of the United States</td>
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<tr>
<td>HIST 3 History of World Civilization</td>
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<tr>
<td>HIST 3H History of World Civilization – Honors</td>
<td></td>
</tr>
<tr>
<td>HIST 4 History of World Civilization</td>
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<tr>
<td>HIST 4H History of World Civilization – Honors</td>
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<tr>
<td>HIST 7 History of the United States</td>
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<tr>
<td>HIST 7H History of the United States – Honors</td>
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<tr>
<td>HIST 8 History of the United States</td>
<td></td>
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<tr>
<td>HIST 8H History of the United States – Honors</td>
<td></td>
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<tr>
<td>HIST 10 History of Asia</td>
<td></td>
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<tr>
<td>HIST 11 History of Asia</td>
<td></td>
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<tr>
<td>HIST 19 History of Mexico</td>
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<tr>
<td>HIST 30 History of the African American</td>
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<tr>
<td>HIST 31 History of the African American</td>
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<tr>
<td>HIST 35 History of Africa</td>
<td></td>
</tr>
<tr>
<td>HIST 36 Women in American History – Beyond the Stereotypes</td>
<td></td>
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<tr>
<td>HIST 39 California History</td>
<td></td>
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<tr>
<td>HIST 40 History of the Mexican American</td>
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<tr>
<td>HUMA 1 The Humanities</td>
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<tr>
<td>ITAL 3 Intermediate Italian</td>
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<tr>
<td>ITAL 4 Continuing Intermediate Italian</td>
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<td>ITAL 5 Advanced Italian</td>
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<tr>
<td>ITAL 6 Continuing Advanced Italian</td>
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<tr>
<td>ITAL 60 Italian Culture through Cinema</td>
<td></td>
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<tr>
<td>JAPN 3 Intermediate Japanese</td>
<td></td>
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<tr>
<td>JAPN 4 Continuing Intermediate Japanese</td>
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<tr>
<td>JAPN 5 Advanced Japanese</td>
<td></td>
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<tr>
<td>LIT 1 Early American Literature</td>
<td></td>
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<tr>
<td>LIT 2 Modern American Literature</td>
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<tr>
<td>LIT 6A Survey of English Literature</td>
<td></td>
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<tr>
<td>LIT 6B Survey of English Literature</td>
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<tr>
<td>LIT 10 Survey of Shakespeare</td>
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<tr>
<td>LIT 11B World Literature</td>
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<tr>
<td>LIT 14 Introduction to Modern Poetry</td>
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<tr>
<td>LIT 15 Introduction to Cinema</td>
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<tr>
<td>LIT 20 African American Literature</td>
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<tr>
<td>LIT 25 Contemporary Mexican American Literature</td>
<td></td>
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<tr>
<td>LIT 33 Images of Women in Literature</td>
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<tr>
<td>LIT 35 Science Fiction and Fantasy Survey</td>
<td></td>
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<tr>
<td>LIT 36 Introduction to Mythology</td>
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<tr>
<td>LIT 47 The Bible as Literature: New Testament</td>
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<tr>
<td>PHIL 5 Introduction to Philosophy</td>
<td></td>
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<tr>
<td>PHIL 5H Introduction to Philosophy – Honors</td>
<td></td>
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<tr>
<td>PHIL 12 Ethics</td>
<td></td>
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<tr>
<td>PHIL 12H Ethics – Honors</td>
<td></td>
</tr>
<tr>
<td>PHIL 15 Major World Religions</td>
<td></td>
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<tr>
<td>PHIL 15H Major World Religions – Honors</td>
<td></td>
</tr>
<tr>
<td>PHIL 20A History of Western Philosophy</td>
<td></td>
</tr>
<tr>
<td>PHIL 20B History of Western Philosophy</td>
<td></td>
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<tr>
<td>SIGN 104 American Sign Language 4</td>
<td></td>
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<tr>
<td>SIGN 202 American Deaf Culture</td>
<td></td>
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<tr>
<td>SPAN 3 Intermediate Spanish</td>
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<tr>
<td>SPAN 4 Continuing Intermediate Spanish</td>
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<tr>
<td>SPAN 5 Advanced Spanish</td>
<td></td>
</tr>
<tr>
<td>SPAN 6 Continuing Advanced Spanish</td>
<td></td>
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<tr>
<td>SPAN 25 Spanish Literature</td>
<td></td>
</tr>
</tbody>
</table>
## INTERSEGMENTAL GENERAL EDUCATION TRANSFER CURRICULUM (IGETC) 2007-08

### Area 4

**Social and Behavioral Sciences**

Select three courses total from a minimum of two different subject areas:

- ANTH 3 Archaeology
- ANTH 5 Principles of Cultural Anthropology, or
- ANTH 22 General Cultural Anthropology
- BUSC 1A Principles of Economics: Macroeconomics
- BUSC 1AH Principles of Economics: Microeconomics
- GEOG 2 Human Geography
- GEOG 2H Human Geography – Honors
- GEOG 8 The Urban World
- GEOG 30 Geography of California
- * POLI 1 Political Science
- * POLI 1H Political Science – Honors
- POLI 5 Political Science Theory
- POLI 9 Introduction to International Relations
- * POLI 25 Politics of the Mexican American
- * POLI 35 African American Politics
- PSYC 1A Introduction to Psychology
- PSYC 1AH Introduction to Psychology – Honors
- 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 20 Sociology of Ethnic Relations
- SOC 20H Sociology of Ethnic Relations – Honors
- SPCH 7 Intercultural Communication

### Area 5

**Physical and Biological Sciences**

Choose two courses, one physical and one biological science, at least one must include a laboratory. Laboratory must be a corresponding section to the lecture course taken. Laboratory courses are underlined.

#### Physical Science:

- ASTR 5 Introduction to Astronomy
- ASTR 5L Astronomical Observing Laboratory
- ASTR 7 Geology of the Solar System
- CHEM 10 Chemistry for Allied Health Majors
- CHEM 20 Introductory Organic and Biochemistry
- CHEM 40 Introduction to General Chemistry – Honors
- CHEM 50 General Chemistry I
- CHEM 50H General Chemistry I – Honors
- CHEM 51 General Chemistry II
- GEOL 1 Geology
- GEOL 8H Earth Science – Honors
- GEOL 9 Environmental Geology
- GEOL 13 Evolution of the Earth
- OCEA 10L Introduction to Oceanography
- OCEA 10H Introduction to Oceanography – Honors
- PHYS 1 Physics
- PHYS 2A General Physics
- PHYS 2B General Physics
- PHYS 4A Engineering Physics
- PHYS 4B Engineering Physics
- PHYS 4C Engineering Physics

#### Biological 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 4 Animal Behavior
- BIOL 4H Biology for Majors – Honors
- BIOL 6 Humans and the Environment
- BIOL 6L Humans and the Environment Laboratory
- BIOL 8 Cell and Molecular Biology
- BIOL 20 Marine Biology
- BIOL 21 Marine Biology Laboratory
- MICR 1 Principles of Microbiology
- MICR 22 Microbiology
- PSYC 1B Biological Psychology

### UC REQUIREMENT ONLY

**Language other than English:**

The minimum proficiency required is met by completing one of the courses listed below or by completion of two years of high school study in the same language.

<table>
<thead>
<tr>
<th>Code</th>
<th>Course Name</th>
<th>Code</th>
<th>Course Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHIN 1</td>
<td>Elementary Chinese</td>
<td>JAPN 1</td>
<td>Elementary Japanese</td>
</tr>
<tr>
<td>FRCH 1</td>
<td>Elementary French</td>
<td>SIGN 101</td>
<td>American Sign Language I</td>
</tr>
<tr>
<td>GERM 1</td>
<td>Elementary German</td>
<td>SPAN 1</td>
<td>Elementary Spanish</td>
</tr>
<tr>
<td>ITAL 1</td>
<td>Elementary Italian</td>
<td>SPAN 11</td>
<td>Spanish for the Spanish Speaking</td>
</tr>
</tbody>
</table>

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

**Note:** Courses used to meet the U.S. History and American Institutions requirements cannot be double counted for IGETC. UCSB requires a college-level U.S. history or government course.

**Option 1:**

- HIST 7 (or 7H) + HIST 8 (or 8H)

  If Option #1 is selected, DO NOT select another D6 course as your third Area D course.

**Option 2:**

- Completion of one course from U.S. History plus one course from American Institutions.

  See the categories below under United States History and American Institutions.

### United States History:

<table>
<thead>
<tr>
<th>Code</th>
<th>Course Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIST 1</td>
<td>History of the United States</td>
</tr>
<tr>
<td>HIST 7</td>
<td>History of the United States – Honors</td>
</tr>
<tr>
<td>HIST 7H</td>
<td>History of the United States – Honors</td>
</tr>
<tr>
<td>HIST 8</td>
<td>History of the United States</td>
</tr>
<tr>
<td>HIST 8H</td>
<td>History of the United States – Honors</td>
</tr>
<tr>
<td>HIST 30</td>
<td>History of the African American</td>
</tr>
<tr>
<td>HIST 31</td>
<td>History of the African American</td>
</tr>
<tr>
<td>HIST 36</td>
<td>Women in American History – Beyond the Stereotypes</td>
</tr>
<tr>
<td>HIST 40</td>
<td>History of the Mexican American</td>
</tr>
</tbody>
</table>

### American Institutions:

<table>
<thead>
<tr>
<th>Code</th>
<th>Course Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>POLI 1</td>
<td>Political Science</td>
</tr>
<tr>
<td>POLI 1H</td>
<td>Political Science – Honors</td>
</tr>
<tr>
<td>POLI 25</td>
<td>Politics of the Mexican American</td>
</tr>
<tr>
<td>POLI 35</td>
<td>African American Politics</td>
</tr>
</tbody>
</table>

### Notes:

UC limits transfer credit for some courses. Students may review the UC Transfer Course Agreement (TCA) with an educational advisor or counselor in the Student Services Center. Students must see an educational advisor or counselor for preliminary IGETC certification. For IGETC certification, the course must be on the list during the year taken. Students from non-English speaking countries should see an educational advisor or international student counselor for language proficiency equivalences.
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.

If, for good cause, you are unable to complete one or two IGETC courses*, you may be eligible to complete IGETC after transferring (*). Typical situations which constitute good cause for not completing one or two IGETC courses are illness, unavailable or canceled classes, military service, and unexpected hardships, such as family or employment problems, experienced in the final term before transfer.

You may petition only during the final semester before transferring. If your petition for partial certification of IGETC is approved, you will be able to complete IGETC in one of the following ways:

1. Take a certified IGETC course, in the area to be completed, at any California community college at a time that does not require concurrent enrollment, such as during summer session.
2. Complete the requirement at a California community college while concurrently enrolled at the UC or CSU. You will be subject to the UC or CSU campus rules regarding concurrent enrollment, so this option may not be available at your campus.
3. Take a comparable course at the UC or CSU campus to which you will be transferring. This option is at the discretion of each campus, so it may not be a choice available to you.

You will be expected to complete IGETC before the beginning of the second full year of enrollment at your UC or CSU campus. Check with your campus counselor/educational advisor after transfer for more information, including which options are available and which UC or CSU courses may be comparable to the IGETC courses remaining to be completed.

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.

Although admission requirements vary and are listed in the catalogs of the various universities and colleges, students who transfer to independent colleges and universities are given credit for most, if not all, of their community college work.

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
- 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
- Mount St. Mary’s College
- National University
- New College of California
- 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 Art Institute
- San Francisco Conservatory of Music
- Santa Clara University
- Saybrook Graduate School and Research Center
- Scripps College
- Simpson College
- Southern California College of Optometry
- 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
- University of West Los Angeles
- Vanguard University of Southern California
- Western University of Health Sciences
- Westminster College
- Whittier College
- William Jessup University
- Woodbury University

For more information on California Independent Colleges and Universities see an educational advisor in the Advising Center or counselor in the Counseling Department. You may also obtain information from the aiucc.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 grade point average (GPA) in transferable course work; and be enrolled in at least six units at Mt. SAC. A $10.00 fee plus any material/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 for Physical Education Activity Courses

CAN (California Articulation Number System)
The California Articulation Number (CAN) System is a statewide numbering system of independent twin course numbers assigned by local colleges. A CAN number signals that participating California colleges and universities have determined that courses offered by other campuses are equivalent in content and scope to courses offered on their own campuses, regardless of their unique titles or local identifying numbers. Thus, if a schedule of classes or catalog lists a course bearing a CAN number, students on one campus can be assured that it will be accepted in lieu of the comparable CAN course noted in the catalog or schedule of classes of another campus. For example, CAN ECON 2 on one campus will be accepted as meeting the requirement of the designated CAN ECON 2 course on other participating community college or university campuses.

The CAN numbering system is obviously useful for students attending more than one community college and is applied to many of the transferable, lower division courses students need as preparation for their intended major. Because these course requirements may change, however, and because courses are continually being redefined, qualified, or deleted from the CAN database, students should always check with an educational advisor in The Advising Center or counselor in the Counseling Department to determine how CAN-designated courses fit into their educational plans for transfer. Students should consult the ASSIST database at www.assist.org for specific information on course agreements. The college staff will help students interpret this information.

Eligibility
In listing a prerequisite for enrolling in a course, an "eligibility" may also be listed. An eligibility requirement specifies the course level the student must qualify to enroll in—not that the course has to be completed prior to enrollment. For example, the prerequisite "eligibility for English 68" requires that the student must qualify to enroll in English 68 in order to enroll in the particular course.

Prerequisite
A prerequisite is a course which must be taken 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.
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### ADMINISTRATION OF JUSTICE: LAW ENFORCEMENT

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<td>ADJU 1</td>
<td>The Administration of Justice System</td>
<td>3</td>
<td>History and philosophy of the justice system, subsystems, roles, relationships and theories of crime causation and correction.</td>
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<td>ADJU 2</td>
<td>Principles and Procedures of the Justice System</td>
<td>3</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>
<td>ADJU 3</td>
<td>Concepts of Criminal Law</td>
<td>3</td>
<td>Provides an overview of California criminal law from the perspective of the law enforcement officer.</td>
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<td>ADJU 4</td>
<td>Legal Aspects of Evidence</td>
<td>3</td>
<td>Introduction to criminal evidence, including admissibility, witness competency, privileged communication, hearsay, and collection and preservation of evidence.</td>
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<td>ADJU 5</td>
<td>Community Relations</td>
<td>3</td>
<td>Prerequisite: Eligibility for English 68 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>Responsibilities, techniques and methods of police patrol with emphasis on the basic knowledge required in handling common police occurrences.</td>
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<td>ADJU 7</td>
<td>Community Relations</td>
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<td>Prerequisite: Eligibility for English 68 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.</td>
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<td>ADJU 8</td>
<td>Gangs in the Community/Corrections</td>
<td>3</td>
<td>Historical and current perspectives, prison gang dynamics, identification of characteristics, cultural differences of gang philosophy. Includes law enforcement/corrections role in intervention/suppression.</td>
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### AERONAUTICS

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<td>AERO 23</td>
<td>Primary Pilot Ground School</td>
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<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.</td>
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<td>AERO 24</td>
<td>Navigation</td>
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<td>Advanced dead reckoning navigation procedures. Aeronautical computers and their application in cross-country flying. Use of radio navigation aids, flight planning, flight directors, global positioning system, and electronic flight instrumentation systems.</td>
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<tr>
<td>AERO 25</td>
<td>Commercial Pilot Ground School</td>
<td>3</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>
</tr>
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</table>
The learning process, basic teaching principles, and the application of AERO 58 — Flight Instructor Ground School 3 Units
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 certificated flight instructor. Students must complete a minimum of 15 hours of flight time, including three hours of dual instruction. Students who repeat this course will improve skills through further instruction and practice.

AERO 41 — Basic Flight Simulator Laboratory .5 Unit
(May be taken for Credit/No Credit only.) Degree Appropriate
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 airflow, holding patterns, VOR and ADF orientation, and instrument approach procedures.

AERO 42 — Advanced Flight Simulator Laboratory .5 Unit
(May be taken for Credit/No Credit only.) Degree Appropriate
27 hours lab.
Advisory: AERO 30 or AERO 41

AERO 45A — Multi-Engine Turbine Aircraft Operations 3 Units
54 hours lecture. Non-Degree Credit
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
54 hours lecture. Non-Degree Credit
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.

AERO 40L — Flight Laboratory 1 Unit
(Degree Appropriate
(May be taken for four times for credit.)
(May be taken for Credit/No Credit 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 certificated flight instructor. Students must complete a minimum of 15 hours of flight time, including three hours of dual instruction. Students who repeat this course will improve skills through further instruction and practice.

AGAB 20 — Microcomputer Applications in Agriculture 3 Units
(CAN AG 2)
54 hours lecture.
Advisory: Eligibility for ENGL 68
Use of word processing, database, spreadsheets, and graphic programs for students interested in agricultural business, nursery and landscape, equipment, and farm management.

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

AGE 60 — Medical Nursing and Animal Care 4 Units
54 hours lecture. Degree Appropriate, CSU
54 hours lab.
Prerequisite: AGLI 95 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.

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

AGE 62A — Clinical Pathology 4 Units
Fall Semester Degree Appropriate, CSU
54 hours lecture.
54 hours lab.
Prerequisite: AGLI 95
Introduces students to the expansive field of clinical pathology. Topics include hematology, clinical chemistry, venipuncture, electrocardiography, application of casts, splints and other appliances. Includes diseases, their causes and effects, and immunology of animals.

AGE 62B — Clinical Pathology 4 Units
Spring Semester Degree Appropriate, CSU
54 hours lecture.
54 hours lab.
Prerequisite: AGLI 95
Introduces students to the expansive field of clinical pathology. Topics include hematology, clinical chemistry, urinalysis, external parasites and cytology.

AGE 64 — Veterinary Pharmacology 3 Units
54 hours lecture. Degree Appropriate, CSU
Prerequisite: Formal admittance to Advanced Class Status in the Registered Veterinary Technology Program, and completion of MATH 51 or MATH 51B or AGAG 91
Basic concepts in pharmacological chemistry. Pharmaceuticals and biologics commonly used in the maintenance of animal health. Includes generic terminology, abbreviations for prescriptions, labeling requirements, state and federal laws, classification of materials, weights and measures, drug dosage flow rates, pharmacological mathematics and the metric system, side effects and drug interactions.

AGE 65 — Veterinary Radiography 2 Units
18 hours lecture. Degree Appropriate, CSU
54 hours lab.
Prerequisite: AGLI 95 and formal admittance to the Registered Veterinary Technology Program
Basic concepts and skills of veterinary positioning of canine, feline, avian, reptilian species, and livestock for radiography; processing of the radiograph; radiation safety; basic technique and instrumentation; contrast radiography and ultrasound imaging. Emphasizes performance of x-ray procedures for the veterinary practitioner.

AGE 69 — Laboratory Animal Medicine and Care 3 Units
36 hours lecture. Degree Appropriate, CSU
54 hours lab.
Laboratory animal medicine, care and procedures, rules and regulations governing laboratory animals.

AGE 83A — Work Experience in Animal Health 1 Unit
(May be taken for Credit/No Credit only.) Degree Appropriate
(May be taken four times for credit.)
75 hours lab.
Prerequisite: Formal admittance and enrollment 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.

AGE 83B — Work Experience in Animal Health 2 Units
(May be taken for Credit/No Credit only.) Degree Appropriate
(May be taken four times for credit.)
150 hours lab.
Prerequisite: Formal admittance and enrollment 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 150 paid clock hours or 120 non-paid clock hours per semester is required for each one unit of credit. It is recommended that the hours per week are equally distributed throughout the semester. Students who repeat this course will improve skills through further instruction and practice.
COURSE DESCRIPTIONS

Instruction. A minimum of 75 paid clock hours or 60 non-paid clock hours per semester is required for each one unit of credit. It is recommended that the hours per week are equally distributed throughout the semester. Students who repeat this course will improve skills through further instruction and practice.

**AGHE 84A — Applied Animal Health Procedures** 1 Unit
Fall Semester
54 hours lab.
Fall field study course in the collection, handling, and analysis of feces, urine, and blood samples of pet and domestic animals. Practical experience in applied clinical procedures and techniques, including treatments and minor surgical procedures with domestic farm animals. Experiences with animals will vary due to seasonal changes and different husbandry practices during fall and spring.

**AGHE 84B — Applied Animal Health Procedures** 1 Unit
Spring Semester
Degree Appropriate
54 hours lab.
Spring field study course in the collection, handling and analysis of feces, urine and blood samples of pet and domestic animals. Practical experience in applied clinical procedure and techniques, including treatments and minor surgical procedures with school domestic farm animals. Experiences with animals will vary due to seasonal changes and different husbandry practices during fall and spring.

**AGHE 85 — Seminar in Registered Veterinary Technology** 1 Unit
18 hours lecture.
Degree Appropriate
Prerequisite: Completion of the Registered Veterinary Technology program or consent of instructor.
Group study course designed to help students with success on their national and state registration examinations. Course includes exposure to the types of questions encountered in registration examinations, question analysis strategies, and review of important anatomical, physiological, and nursing concepts.

**AGAN 1 — Animal Science** 3 Units
(CAN AG 6)
54 hours lecture.
Fundamental problems and essential concepts of animal production. Includes the study of the types of domestic animals and their utilization by humans.

**AGAN 2 — Animal Nutrition** 3 Units
(CAN AG 12)
54 hours lecture.
Composition of feeds and their utilization by domestic animals, including digestive physiology, animal assessment, feed appraisal and compiling of rations.

**AGAN 51 — Animal Handling and Restraint** 3 Units
Degree Appropriate, CSU
36 hours lecture.
Methods of proper handling for large and small animals, including chemical and physical techniques of restraint.

**AGAN 94 — Animal Breeding** 3 Units
54 hours lecture.
Degree Appropriate
The science of animal breeding, including fundamentals of inheritance, reproduction and breeding systems for domestic animals. Artificial insemination, embryo manipulation and current topics in reproductive biotechnology will also be included.

**AGFR 20 — Conservation of Natural Resources** 3 Units
54 hours lecture.
Degree Appropriate, CSU, UC
Prerequisite: Eligibility for ENGL 68.
Concepts of conservation biology for natural resources, including biogeography, biodiversity and extinction, environmental law, and conservation organizations. Emphasis on temperate forest, tropical forest, desert, and grassland ecosystems.

**AGAG 1 — Food Production, Land Use and Politics** 3 Units
A Global Perspective
54 hours lecture.
Degree Appropriate, CSU, UC
Surveys the world's food producing systems in terms of economic, political, and cultural forces. Emphasizes ethical, sustainable food producing agriculture.

**AGAG 59 — Work Experience in Agriculture** 1 Unit
(May be taken four times for credit.)
Degree Appropriate
(May be taken for Credit/No Credit only.)
225 hours lab.
Prerequisite: Compliance with Work Experience regulations as designated in the College Catalog
This course is designated 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.

**AGAG 61 — Work Experience in Agriculture** 3 Units
(May be taken four times for credit.)
Degree Appropriate
(May be taken for Credit/No Credit only.)
225 hours lab.
Prerequisite: Compliance with Work Experience regulations as designated in the College Catalog
This course is designed to provide majors with actual on-the-job experience in an approved work station which is related to classroom instruction. A minimum of 75 paid clock hours or 60 non-paid clock hours per semester is required for each one unit of credit. It is recommended that the hours per week are equally distributed throughout the semester. Students who repeat this course will improve skills through further instruction and practice.

**AGAG 91 — Agricultural Calculations** 3 Units
54 hours lecture.
Degree Appropriate
Prerequisite: Eligibility for MATH 51
Calculating the proper rates of application of veterinary drugs, fertilizers, irrigation water, farm chemicals and pesticidal materials. Practical field work in calibrating application equipment, plotting production rates and feed conversion, determining proper concentrations and dilutions and standardizing butterfat and solids non-fat.
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<td>AGLI 12</td>
<td>Exotic Animal Management</td>
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<td>Care and management of exotic and alternative livestock species with</td>
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<td>emphasis on identification, health maintenance, handling techniques,</td>
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<td>nutrition and reproduction. Includes analysis of industry trends and</td>
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<td>principal marketing uses of exotic animals.</td>
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<td>AGLI 14</td>
<td>Swine Production</td>
<td>3</td>
<td>A study of the various types of swine enterprises and the ways and</td>
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<td></td>
<td></td>
<td>means of entering them. Swine management, including handling,</td>
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<td></td>
<td></td>
<td>feeding, breeding, farrowing, butchering, and marketing. Practical skills</td>
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<td></td>
<td></td>
<td>are taught using the college farm.</td>
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<tr>
<td>AGLI 16</td>
<td>Horse Production</td>
<td>4</td>
<td>Fall Semester</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>Selection, utilization, and management of the light horse emphasizing</td>
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<td></td>
<td>recreational aspects of the modern horse. Laboratory work includes</td>
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<td>experience in the care of horse and tack.</td>
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<tr>
<td>AGLI 17</td>
<td>Sheep Production</td>
<td>3</td>
<td>Spring Semester</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>A study of the various types of sheep enterprises and the ways and</td>
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<td></td>
<td>means of entering them. Sheep management, sheep handling, feeding,</td>
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<td></td>
<td></td>
<td>shearing, breeding, lambing, and marketing. Practical skills are taught</td>
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<td></td>
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<td>on the college farm and sheep farms in the area.</td>
</tr>
<tr>
<td>AGLI 18</td>
<td>Horse Ranch Management</td>
<td>4</td>
<td>Degree Appropriate, CSU</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>54 hours lecture.</td>
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<td>54 hours lab.</td>
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<td>Advisory: AGLI 16</td>
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<tr>
<td></td>
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<td></td>
<td>Skills and knowledge to work on or manage a modern equine ranch,</td>
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<td>including management of the breeding farm, farm lay out, estrus cycles,</td>
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<td></td>
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<td>breeding problems and stallion care.</td>
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<tr>
<td>AGLI 19</td>
<td>Horse Hoof Care</td>
<td>2</td>
<td>Degree Appropriate, CSU</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>18 hours lecture.</td>
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<td></td>
<td></td>
<td></td>
<td>54 hours lab.</td>
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<td></td>
<td>Emphasizes proper horse hoof care; shoeing, trimming and disease</td>
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<td>recognition and control.</td>
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<tr>
<td>AGLI 20</td>
<td>Horse Behavior and Training</td>
<td>2</td>
<td>Degree Appropriate, CSU</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>18 hours lecture.</td>
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<td></td>
<td></td>
<td></td>
<td>54 hours lab.</td>
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<td></td>
<td>Co-requisite: AGLI 16 or AGLI 18 (may have been taken previously) or</td>
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<td></td>
<td></td>
<td></td>
<td>equivalent experience with horses.</td>
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<td></td>
<td>Breaking and starting young horses. Concentrates on halter training of</td>
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<td>foals, ground work on yearlings, and green-breaking two-year-olds and up.</td>
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<td></td>
<td>Includes lunging techniques, driving, and breaking to a saddle. Training</td>
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<td>in collection, turning, backing, leads, and trailer loading.</td>
</tr>
<tr>
<td>AGLI 30</td>
<td>Beef Production</td>
<td>3</td>
<td>Degree Appropriate, CSU</td>
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<td></td>
<td></td>
<td></td>
<td>36 hours lecture.</td>
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<td></td>
<td></td>
<td>54 hours lab.</td>
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<td></td>
<td>Principles and practices in the selection and management of feeder,</td>
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<td>market, and breeding beef cattle. Economics of production, retail</td>
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<td>product, utilization of farm-grown feeds, and feedlot operation.</td>
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<tr>
<td>AGLI 34</td>
<td>Livestock Judging and Selection</td>
<td>2</td>
<td>Degree Appropriate, CSU</td>
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<td></td>
<td></td>
<td></td>
<td>18 hours lecture.</td>
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<td></td>
<td>54 hours lab.</td>
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<td>Study of form and appearance of farm animals as related to their</td>
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<td></td>
<td>function. Includes judging of breeding and terminal livestock as well as</td>
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<td>carcass evaluation.</td>
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<tr>
<td>AGLI 95</td>
<td>Anatomy of Domestic Animals</td>
<td>4</td>
<td>Degree Appropriate, CSU</td>
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<td></td>
<td></td>
<td></td>
<td>54 hours lecture.</td>
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<td>54 hours lab.</td>
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<td></td>
<td>Anatomy of domestic animals including body structures and systems,</td>
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<td>comparing domestic animals commonly found in the veterinary medical</td>
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<td>industry.</td>
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<tr>
<td>AGLI 96</td>
<td>Animal Sanitation and Disease Control</td>
<td>3</td>
<td>Degree Appropriate, CSU</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>54 hours lecture.</td>
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<td>Prevention and control of infectious diseases affecting domestic</td>
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<td>animals, including basic disease concepts, transmission of infectious</td>
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<td>diseases, principles of sanitation and fundamentals of immunology.</td>
</tr>
</tbody>
</table>

AGRIEUTURE: LIVESTOCK PRODUCTION

AGOR 1 — Horticultural Science

AGOR 2 — Plant Propagation/Greenhouse Management

AGOR 3 — Landscape Design

AGOR 5 — Park Facilities

AGOR 10 — Aquatic Facilities

AGOR 12 — Landscape Management

AGOR 14 — Landscape Design

AGOR 16 — Park Management
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AGOR 15</td>
<td>Interior Landscaping</td>
<td>3</td>
<td>Degree Appropriate</td>
</tr>
<tr>
<td></td>
<td>(May be taken for option of letter grade or Credit/No Credit.)</td>
<td></td>
<td>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.</td>
</tr>
<tr>
<td>AGOR 24</td>
<td>Integrated Pest Management</td>
<td>3</td>
<td>Degree Appropriate</td>
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<tr>
<td></td>
<td>(May be taken for option of letter grade or Credit/No Credit.)</td>
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<td>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.</td>
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<tr>
<td>AGOR 25</td>
<td>Floral Design I</td>
<td>3</td>
<td>Degree Appropriate</td>
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<tr>
<td></td>
<td>(May be taken for option of letter grade or Credit/No Credit.)</td>
<td></td>
<td>54 hours lab. Instruction and application of principles in the art of floral design as to form, styles and composition. Designing of floral arrangements, wreaths, sprays, baskets, bouquets, wedding flowers and corsages are included in the laboratory.</td>
</tr>
<tr>
<td>AGOR 26</td>
<td>Floral Design II</td>
<td>3</td>
<td>Degree Appropriate</td>
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<td>(May be taken for option of letter grade or Credit/No Credit.)</td>
<td></td>
<td>54 hours lab. Prerequisite: AGOR 25 or equivalent experience. Continued application of principles in the art of floral design. Contemporary design theory emphasizing creativity, self expression, and professional design situations.</td>
</tr>
<tr>
<td>AGOR 27</td>
<td>Floral Design III</td>
<td>3</td>
<td>Degree Appropriate</td>
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<td>(May be taken for two times for credit.)</td>
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<td>54 hours lab. Prerequisite: AGOR 25 and AGOR 26. Advanced application of principles in the art of holiday designs, party and wedding designs, and sympathy designs. Florist management operations will be emphasized. Students who repeat this course will improve skills through further instruction and practice.</td>
</tr>
<tr>
<td>AGOR 29</td>
<td>Ornamental Plants – Herbs</td>
<td>3</td>
<td>Degree Appropriate</td>
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<td></td>
<td>(May be taken for option of letter grade or Credit/No Credit.)</td>
<td></td>
<td>54 hours lab. Identification, growth habits, culture and ornamental use of landscape annuals, biennials, perennials, ferns, indoor plants, ground covers 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.</td>
</tr>
<tr>
<td>AGOR 30</td>
<td>Ornamental Plants – Trees and Woody Shrubs</td>
<td>3</td>
<td>Degree Appropriate</td>
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<td>(CAN AG 14)</td>
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<td>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 Nurseries and Garden Centers (CANGC) and California Landscape Contractors Association (CLCA) certification test plant lists.</td>
</tr>
<tr>
<td>AGOR 32</td>
<td>Landscaping and Nursery Management</td>
<td>3</td>
<td>Degree Appropriate</td>
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<td></td>
<td>Fall Semester</td>
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<td>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, herbicide and growth regulators; irrigation; mechanization; financing; personnel management; retail displays, advertising and customer relationships; federal, state and local laws and regulations. Field trips are required.</td>
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<tr>
<td>AGOR 33</td>
<td>Sports Turf Management</td>
<td>3</td>
<td>Degree Appropriate</td>
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<td>Spring Semester</td>
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<td>54 hours lab. Prerequisite: AGOR 39 or equivalent experience Prepare for the sport 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.</td>
</tr>
<tr>
<td>AGOR 35</td>
<td>Soil Science and Management</td>
<td>3</td>
<td>Degree Appropriate</td>
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<td>(CAN AG 14)</td>
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<td>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.</td>
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<tr>
<td>AGOR 36</td>
<td>Small Engine Repair</td>
<td>3</td>
<td>Degree Appropriate</td>
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<td>(May be taken for option of letter grade or Credit/No Credit.)</td>
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<td>54 hours lab. Principles and repair of small engines used in landscape, industrial and agricultural applications. Includes repairs of lawnmowers, chain saws, 2-cycle engine, 4-cycle engine, spraying equipment, all-terrain vehicles, and other related gas-powered equipment.</td>
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<tr>
<td>AGOR 37</td>
<td>Small Engine Repair</td>
<td>3</td>
<td>Degree Appropriate</td>
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<td>(May be taken for option of letter grade or Credit/No Credit.)</td>
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<td>54 hours lab. Advanced repair and maintenance of mid-horsepower gasoline and diesel engines. Multi-cylinder air- and water-cooled engines used in landscape, industrial and agricultural applications. Repair of ride mowers, generator engines, air compressor engines, 2-cycle and 4-cycle engines, spraying equipment, all-terrain vehicles, and other related gas-powered equipment. Students gain actual hands-on experience maintaining and overhauling engines.</td>
</tr>
<tr>
<td>AGOR 38</td>
<td>Small Engine Repair</td>
<td>3</td>
<td>Degree Appropriate</td>
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<td>(May be taken for option of letter grade or Credit/No Credit.)</td>
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<td>54 hours lab. 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.</td>
</tr>
</tbody>
</table>
AGOR 56 — Engine Diagnostics 3 Units
Degree Appropriate, CSU
(May be taken for option of letter grade or Credit/No Credit.)
36 hours lecture.
54 hours lab.
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.

AGOR 57 — Power Train Repair 3 Units
Degree Appropriate
(May be taken for option of letter grade or Credit/No Credit.)
36 hours lecture.
54 hours lab.
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.

AGOR 62 — Landscape Irrigation — Design and Installation 3 Units
Degree Appropriate, CSU
(May be taken for option of letter grade or Credit/No Credit.)
36 hours lecture.
54 hours lab.
Design and application of turf and ornamental irrigation systems. Design techniques, sprinkler system components and hydraulic principles used in nursery management, interior design, residential and commercial landscaping. Special emphasis is given to water conservation incorporating controlled flow technologies.

AGOR 63 — Landscape Irrigation Systems Management 3 Units
Degree Appropriate
(May be taken for option of letter grade or Credit/No Credit.)
36 hours lecture.
54 hours lab.
A systematic approach to water conservation in the landscape. Repair techniques that will allow a current system to efficiently operate to its initial design. Trouble shooting procedures including field testing of valves and controllers. Irrigation efficiency test will be incorporated to demonstrate proper methods of water audits.

AGOR 64 — Landscape Irrigation — Drip and Low Volume 3 Units
Degree Appropriate
(May be taken for option of letter grade or Credit/No Credit.)
36 hours lecture.
54 hours lab.
Conservation of water in the landscape by utilization of drip and low-flow irrigation practices. Design, operation and maintenance of drip and low-flow irrigation systems, including determination of irrigation requirements, selection of emitters and low-flow devices, and uniformity of water distribution. Students will gain hands-on experience in design and installation techniques.

AGOR 71 — Landscape Construction Fundamentals 3 Units
Degree Appropriate, CSU
(May be taken for option of letter grade or Credit/No Credit.)
36 hours lecture.
54 hours lab.
Advisory: Eligibility for ENGL 68
Fundamentals of construction techniques and tools used in landscaping. Students will gain skills in construction projects that include surveying techniques, utilities (gas, water, electricity), woodworking, and masonry.

AGOR 72 — Landscape Hardscape Applications 3 Units
Degree Appropriate, CSU
(May be taken for option of letter grade or Credit/No Credit.)
36 hours lecture.
54 hours lab.
Landscape construction pertaining to hardscape featured in the landscape. Estimation and installation of fences, walks, planters, patios, lighting, barbecues, gazebos, decks, ponds, spas, fountains and pools. Students will gain hands-on experience in the laboratory activities.

AGOR 73 — Landscaping Laws, Contracting, and Estimating 3 Units
Degree Appropriate, CSU
(May be taken for option of letter grade or Credit/No Credit.)
54 hours lecture.
Landscape laws, contracting, and estimating as it pertains to Landscape Construction. Information covered will be helpful for the licensing exam administered by the state of California C-27 classification. Students will gain hands-on experience of contracting and running a business.

AGOR 75 — Urban Arboriculture 3 Units
Degree Appropriate
(May be taken for option of letter grade or Credit/No Credit.)
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 91 — Work Experience in Nursery Operations 1 Unit
Degree Appropriate
(May be taken for Credit/No Credit only.)
75 hours lab.
Prerequisite: Compliance with Work Experience regulations as designated in the College Catalog.
This course is designed to provide majors with actual on-the-job experience in an approved work station which is related to classroom instruction. A minimum of 75 paid clock hours or 60 non-paid clock hours per semester is required for each one unit of credit. It is recommended that the hours per week are equally distributed throughout the semester. Students who repeat this course will improve skills through further instruction and practice.

AGOR 92 — Work Experience in Nursery Operations 2 Units
Degree Appropriate
(May be taken for Credit/No Credit only.)
150 hours lab.
Prerequisite: Compliance with Work Experience regulations as designated in the College Catalog.
This course is designed to provide majors with actual on-the-job experience in an approved work station which is related to classroom instruction. A minimum of 75 paid clock hours or 60 non-paid clock hours per semester is required for each one unit of credit. It is recommended that the hours per week are equally distributed throughout the semester. Students who repeat this course will improve skills through further instruction and practice.

AGOR 93 — Work Experience in Nursery Operations 3 Units
Degree Appropriate
(May be taken for Credit/No Credit only.)
225 hours lab.
Prerequisite: Compliance with Work Experience regulations as designated in the College Catalog.
This course is designed to provide majors with actual on-the-job experience in an approved work station which is related to classroom instruction. A minimum of 75 paid clock hours or 60 non-paid clock hours per semester is required for each one unit of credit. It is recommended that the hours per week are equally distributed throughout the semester. Students who repeat this course will improve skills through further instruction and practice.

AGOR 94 — Work Experience in Nursery Operations 4 Units
Degree Appropriate
(May be taken for Credit/No Credit only.)
300 hours lab.
Prerequisite: Compliance with Work Experience regulations as designated in the College Catalog.
This course is designed to provide majors with actual on-the-job experience in an approved work station which is related to classroom instruction. A minimum of 75 paid clock hours or 60 non-paid clock hours per semester is required for each one unit of credit. It is recommended that the hours per week are equally distributed throughout the semester. Students who repeat this course will improve skills through further instruction and practice.
AGPE 70 — Pet Shop Management 3 Units Fall Semester Degree Appropriate
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 Fall Semester Degree Appropriate
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, training and grooming of dogs.

AGPE 72 — Feline Management 3 Units Fall Semester Degree Appropriate
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 Fall Semester Degree Appropriate
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 aquaria, choosing compatible species, feeding, health care, breeding and raising fish.

AGPE 74 — Reptile Management 2 Units Fall Semester Degree Appropriate
36 hours lecture. Advisory: Eligibility for ENGL 68
Care and keeping of reptiles and amphibians, including snakes, lizards, turtles, tortoises, newts, salamanders and frogs. Includes identification and characteristics of reptiles commonly kept as pets. Guidance regarding the housing, feeding, health maintenance, breeding and raising of reptiles will be offered.

AGPE 76 — Aviculture — Cage and Aviary Birds 3 Units Spring Semester Degree Appropriate
54 hours lecture.
Prepares 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 pittacines, soft bills, finches, game birds, poultry and ornamental waterfowl.

AGPE 76A — Heat Pump Fundamentals 1.5 Units 27 hours lecture. Advisory: AIRC 25 taken prior
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.

AGPE 76B — Gas Heating Fundamentals 2 Units 36 hours lecture. Advisory: AIRC 12, AIRC 25 taken prior
Theory, operation, and application of natural gas and propane heating systems used in residential and light commercial heating installations including the properties of fuel gasses, gas combustion, furnace construction, pilot proving devices and ignition systems.

AIRC 10 — Technical Mathematics in Air Conditioning and Refrigeration 2 Units 27 hours lecture. Degree Appropriate
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 18 hours lecture. Degree Appropriate
Fundamentals of welding related to the field of air conditioning and refrigeration with emphasis on the sterile techniques and skills required for joining copper refrigerant lines and the procedures for light fabrication.

AIRC 12 — Air Conditioning Codes and Standards 3 Units 54 hours lecture. Degree Appropriate
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 3 Units 54 hours lecture. Degree Appropriate
Principles of mechanical refrigeration based on the refrigeration cycle and associated mechanical components. Develops skills for interpreting service gauge pressures and sensible temperatures, system dehydration techniques, and the safe handling and containment of refrigerants.

AIRC 25 — Electrical Fundamentals for Air Conditioning and Refrigeration 4 Units 54 hours lecture. Degree Appropriate
Electrical principles and practices used in air conditioning and refrigeration as applied to the development and interpretation of schematics and the sequential approach to wiring circuits including power supplies, motors, controls. Develops skills for designing electrical circuits, and electrical troubleshooting.

AIRC 26B — Gas Heating Fundamentals 2 Units 36 hours lecture. Degree Appropriate
Theory, operation, and application of natural gas and propane heating systems used in residential and light commercial heating installations including the properties of fuel gasses, gas combustion, furnace construction, pilot proving devices and ignition systems.

AIRC 30 — Heat Load Calculations 3 Units 54 hours lecture. Degree Appropriate
Advisory: AIRC 20 taken prior
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 4 Units 54 hours lecture. Degree Appropriate
Advisory: AIRC 25 taken prior
Electrical control of commercial air conditioning and refrigeration equipment emphasizing time clocks, defrost, three phase transformers, three phase motors, timers, sequencers, starting methods and troubleshooting of three phase systems.

AIRC 32A — Air Properties and Measurement 1.5 Units 27 hours lecture. Degree Appropriate
Advisory: AIRC 12, AIRC 25 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 1.5 Units 27 hours lecture. Degree Appropriate
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 34 — Advanced Mechanical Refrigeration 4 Units 54 hours lecture. Degree Appropriate
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 37 — Pneumatic Controls 2 Units
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 39 — Building Automation Systems 4 Units
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 95 — Work Experience in Air Conditioning and Refrigeration 1 Unit
(May be taken four times for credit.) Non-Degree Credit
75 hours lab.
Prerequisite: Approval of college Work Experience supervisor and compliance with Work Experience regulations as designated in the College Catalog
This course is designed to combine actual job experience in Air Conditioning & Refrigeration with related classroom instruction. This work experience may be during a regular semester or during a summer session. A minimum of 75 paid clock hours or 60 non-paid clock hours per semester is required for each one unit of credit. It is recommended that the hours per week are equally distributed throughout the semester. Students who repeat this course will improve skills through further instruction and practice.

AIRC 96 — Work Experience in Air Conditioning and Refrigeration 2 Units
(May be taken four times for credit.) Non-Degree Credit
150 hours lab.
Prerequisite: Approval of college Work Experience supervisor and compliance with Work Experience regulations as designated in the College Catalog
This course is designed to combine actual job experience in Air Conditioning & Refrigeration with related classroom instruction. This work experience may be during a regular semester or during a summer session. A minimum of 75 paid clock hours or 60 non-paid clock hours per semester is required for each one unit of credit. It is recommended that the hours per week are equally distributed throughout the semester. Students who repeat this course will improve skills through further instruction and practice.

AIRC 97 — Work Experience in Air Conditioning and Refrigeration 3 Units
(May be taken four times for credit.) Non-Degree Credit
225 hours lab.
Prerequisite: Approval of college Work Experience supervisor and compliance with Work Experience regulations as designated in the College Catalog
This course is designed to combine actual job experience in Air Conditioning & Refrigeration with related classroom instruction. This work experience may be during a regular semester or during a summer session. A minimum of 75 paid clock hours or 60 non-paid clock hours per semester is required for each one unit of credit. It is recommended that the hours per week are equally distributed throughout the semester. Students who repeat this course will improve skills through further instruction and practice.

AIRC 98 — Work Experience in Air Conditioning and Refrigeration 4 Units
(May be taken four times for credit.) Non-Degree Credit
300 hours lab.
Prerequisite: Approval of college Work Experience supervisor and compliance with Work Experience regulations as designated in the College Catalog
This course is designed to combine actual job experience in Air Conditioning & Refrigeration with related classroom instruction. This work experience may be during a regular semester or during a summer session. A minimum of 75 paid clock hours or 60 non-paid clock hours per semester is required for each one unit of credit. It is recommended that the hours per week are equally distributed throughout the semester. Students who repeat this course will improve skills through further instruction and practice.

AIRC 99 — Work Experience in Air Conditioning and Refrigeration 5 Units
(May be taken four times for credit.) Non-Degree Credit
375 hours lab.
Prerequisite: Approval of college Work Experience supervisor and compliance with Work Experience regulations as designated in the College Catalog
This course is designed to combine actual job experience in Air Conditioning & Refrigeration with related classroom instruction. This work experience may be during a regular semester or during a summer session. A minimum of 75 paid clock hours or 60 non-paid clock hours per semester is required for each one unit of credit. It is recommended that the hours per week are equally distributed throughout the semester. Students who repeat this course will improve skills through further instruction and practice.

AIRT 41 — Aircraft Recognition and Performance 2 Units
36 hours lecture.
Degree Appropriate, CSU 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
Fall Semester
54 hours lecture.
Degree Appropriate, CSU Advisory: AERO 23 and TRAN 17
Aircraft 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.
## COURSE DESCRIPTIONS

### AIRCRAFT MAINTENANCE TECHNOLOGY

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AIRM 65A</td>
<td>Aircraft Powerplant Maintenance Technology</td>
<td>12</td>
<td>Fall Semester Degree Appropriate, CSU 108 hours lecture.</td>
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<tr>
<td></td>
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<td>324 hours lab.</td>
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<tr>
<td></td>
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<td>Advisory: AIRM 70A, AIRM 71 Theory and maintenance of aircraft powerplant including systems and components. Approved by the FAA and required for the Airframe &amp; Aircraft Powerplant Maintenance Technology Major.</td>
</tr>
<tr>
<td>AIRM 65B</td>
<td>Aircraft Powerplant Maintenance Technology</td>
<td>12</td>
<td>Spring Semester Degree Appropriate, CSU 108 hours lecture.</td>
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<td></td>
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<td></td>
<td>324 hours lab.</td>
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<tr>
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<td>Advisory: AIRM 70B, AIRM 72, AIRM 73 Continuation of Aircraft Powerplant Maintenance Technology 65A, focusing on reciprocating engine systems and components and turbine engine systems and components. Approved by the FAA and required for the Airframe and Aircraft Powerplant Maintenance Technology major.</td>
</tr>
<tr>
<td>AIRM 66A</td>
<td>Airframe Maintenance Technology</td>
<td>12</td>
<td>Fall Semester Degree Appropriate, CSU 108 hours lecture.</td>
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<td></td>
<td>324 hours lab.</td>
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<td>Advisory: AIRM 70A, AIRM 71 Theory of flight, inspection, maintenance, repair, and alteration of aircraft structures. Approved by the FAA and required for the Airframe and Aircraft Powerplant Maintenance Technology major.</td>
</tr>
<tr>
<td>AIRM 66B</td>
<td>Airframe Maintenance Technology</td>
<td>12</td>
<td>Spring Semester Degree Appropriate, CSU 108 hours lecture.</td>
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<tr>
<td></td>
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<td></td>
<td>324 hours lab.</td>
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<tr>
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<td></td>
<td>Advisory: AIRM 70B, AIRM 72, AIRM 73 Continuation of Airframe Maintenance Technology 66A, focusing on airframe systems and components. Approved by the FAA and required for the Airframe and Aircraft Powerplant Maintenance Technology major.</td>
</tr>
<tr>
<td>AIRM 70A</td>
<td>Aircraft Maintenance Electricity and Electronics</td>
<td>3</td>
<td>36 hours lecture.</td>
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<td>Degree Appropriate, CSU 72 hours lab.</td>
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<tr>
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<td>Advisory: AIRM 71 Basic electrical theory including units, terminology, applications of Ohm's Law in series and parallel circuits, nickel cadmium and lead acid storage batteries, generators and related control circuits, electrical wiring practical measuring instruments construction and use. Approved by the FAA and required for the Airframe &amp; Aircraft Powerplant Maintenance Technology Major.</td>
</tr>
<tr>
<td>AIRM 70B</td>
<td>Aircraft Maintenance Electricity and Electronics</td>
<td>3</td>
<td>36 hours lecture.</td>
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<td>Degree Appropriate, CSU 72 hours lab.</td>
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<tr>
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<td>Advisory: AIRM 72, AIRM 73 (May be taken concurrently) Basic principles of alternating current, terminology, units and circuit arrangements, alternators, inverters and related controls, derating of switches and circuit breakers, capacitors, inductors, transistors, cathode ray tubeelectronics, microprocessors, computers, power distribution systems for large aircraft. Approved by the FAA and required for the Airframe and Aircraft Powerplant Maintenance Technology major.</td>
</tr>
<tr>
<td>AIRM 71</td>
<td>Aviation Maintenance Science</td>
<td>6</td>
<td>108 hours lecture.</td>
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<td>Degree Appropriate, CSU 36 hours lab.</td>
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<td>Advisory: AIRM 70B, AIRM 73 Federal aviation regulations, interpretation of aircraft drawings, basic physics, technical mathematics, and aircraft weight and balance. 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.</td>
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<td>Degree Appropriate, CSU 36 hours lab.</td>
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<td>Advisory: AIRM 70B, AIRM 73 An FAA approved course covering aviation materials, non-destructive testing, basic heat-treating and an introduction to machine tool operation.</td>
</tr>
<tr>
<td>AIRM 73</td>
<td>Aviation Welding</td>
<td>1.5</td>
<td>18 hours lecture.</td>
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<td>Degree Appropriate, CSU 36 hours lab.</td>
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<td>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 – Work Experience</td>
<td>2</td>
<td>90 hours lab.</td>
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<td>Degree Appropriate, CSU 90 hours lab.</td>
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<td>Prerequisite: AIRM 65A and AIRM 65B or AIRM 66A and AIRM 66B Combines aircraft maintenance experience in addition to classroom instruction for college credit. Two units of credit will be earned as a result of 120 unpaid 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 Technology</td>
<td>.5</td>
<td>27 hours lab.</td>
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<td>Degree Appropriate, CSU 27 hours lab.</td>
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<td>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 requiring remediation of program modules or completion of laboratory assignments.</td>
</tr>
<tr>
<td>AIRM 81</td>
<td>Lab Studies in Aircraft Maintenance Technology</td>
<td>1</td>
<td>54 hours lab.</td>
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<td>(May be taken for Credit/No Credit only.)</td>
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<tr>
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<td></td>
<td>Advisory: AIRM 70A, AIRM 70B, AIRM 71, AIRM 72, AIRM 73 A FAA approved course covering aircraft flight, flight control and construction methods and procedures.</td>
</tr>
<tr>
<td>AIRM 90A</td>
<td>Airframe Maintenance Technology</td>
<td>3</td>
<td>36 hours lecture.</td>
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<td>Degree Appropriate, CSU 72 hours lab.</td>
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<tr>
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<td>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 90B</td>
<td>Airframe Maintenance Technology</td>
<td>3</td>
<td>36 hours lecture.</td>
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<td>Degree Appropriate, CSU 72 hours lab.</td>
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<tr>
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<td>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 91A</td>
<td>Airframe Maintenance Technology</td>
<td>3</td>
<td>36 hours lecture.</td>
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<td>Degree Appropriate, CSU 72 hours lab.</td>
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<tr>
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<td></td>
<td>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.</td>
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<td></td>
<td>Degree Appropriate, CSU 72 hours lab.</td>
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<tr>
<td></td>
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<td></td>
<td>Advisory: AIRM 70A, AIRM 70B, AIRM 71, 72, 73 Metals and composite materials used in aircraft construction, maintenance, and repair. Approved by the FAA and required for the Airframe and Aircraft Powerplant Maintenance Technology major.</td>
</tr>
</tbody>
</table>
AIRM 92A — Airframe Maintenance Technology 3 Units
Spring Semester
36 hours lecture.
72 hours lab.
Advisory: AIRM 70A, AIRM 70B, AIRM 71, AIRM 72, AIRM 73
A FAA approved course covering aircraft cabin heating and cooling, communication and navigation systems, and ice and rain control systems in small and large aircraft.

AIRM 92B — Airframe Maintenance Technology 3 Units
Spring Semester
36 hours lecture.
72 hours lab.
Advisory: AIRM 70A, AIRM 70B, AIRM 71, AIRM 72, AIRM 73
A FAA approved course covering aircraft hydraulic and pneumatic power systems, landing gear and wheel and brake systems. FAA approved. Approved by the FAA and required for the Airframe and Aircraft Powerplant Maintenance Technology major.

AIRM 93A — Airframe Maintenance Technology 3 Units
Fall Semester
36 hours lecture.
72 hours lab.
Advisory: AIRM 70A, AIRM 70B, AIRM 71, AIRM 72, AIRM 73
A FAA approved course covering aircraft hydraulics and pneumatics, including major hydraulic systems and the operation and maintenance of those systems.

AIRM 93B — Airframe Maintenance Technology 3 Units
Fall Semester
36 hours lecture.
72 hours lab.
Advisory: AIRM 70A, AIRM 70B, AIRM 71, AIRM 72, AIRM 73
A FAA approved course covering aircraft fire detection and suppression systems. Includes aircraft inspection requirements and procedures. Approved by the FAA and required for the Airframe and Aircraft Powerplant Maintenance Technology major.

AIRM 95A — Aircraft Powerplant Maintenance Technology 3 Units
Fall Semester
36 hours lecture.
72 hours lab.
Advisory: AIRM 70A, AIRM 70B, AIRM 71, AIRM 72, AIRM 73
A FAA approved course covering piston powerplant theory. Includes calculations and construction methods.

AIRM 95B — Aircraft Powerplant Maintenance Technology 3 Units
Spring Semester
36 hours lecture.
72 hours lab.
Advisory: AIRM 70A, AIRM 70B, AIRM 71, AIRM 72, AIRM 73
A FAA approved course covering piston engine overhaul, inspection, and troubleshooting procedures.

AIRM 96A — Aircraft Powerplant Maintenance Technology 3 Units
Fall Semester
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. FAA approved. Approved by the FAA and required for the Airframe and Aircraft Powerplant Maintenance Technology major. Required for FAA certification.

AIRM 96B — Aircraft Powerplant Maintenance Technology 3 Units
Fall Semester
36 hours lecture.
72 hours lab.
Advisory: AIRM 70A, AIRM 70B, AIRM 71, AIRM 72, AIRM 73
A FAA approved course covering aircraft hydraulic and pneumatic power systems, landing gear and wheel and brake systems. FAA approved. Approved by the FAA and required for the Airframe and Aircraft Powerplant Maintenance Technology major. Required for FAA certification.

AIRM 97A — Aircraft Powerplant Maintenance Technology 3 Units
Fall Semester
36 hours lecture.
72 hours lab.
Advisory: AIRM 70A, AIRM 70B, AIRM 71, AIRM 72, AIRM 73
A FAA approved course covering instrumentation and smoke and fire detection/suppression systems used in small and large aircraft. Includes engine starting systems and electrical power generating devices.

AIRM 97B — Aircraft Powerplant Maintenance Technology 3 Units
Fall Semester
36 hours lecture.
72 hours lab.
Advisory: AIRM 70A, AIRM 70B, AIRM 71, AIRM 72, AIRM 73
A FAA approved course covering aircraft powerplant maintenance and repair. Includes engine theory and practice of group counseling, the group dynamics, and the essentials of effective recovery.

AD 1 — Alcohol/Drug Dependency 3 Units
54 hours lecture. Degree Appropriate, CSU
Presents an overview of alcohol and chemical dependencies and their ramifications. Explores the impact these dependencies have upon the individual's health, psychological, economic, physiological well-being, community and family concerns. Examines the "myths," images, and stereotypes about substances and substance abusers. Includes familiarization with terms.

AD 2 — Physiological Effects of Alcohol/Drugs 3 Units
54 hours lecture. Degree Appropriate, CSU
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
54 hours lecture. Degree Appropriate, CSU
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
27 hours lecture. Degree Appropriate, CSU
Examines the history, law and psychology of domestic violence, cultural/social aspects, and relationship to substance abuse.

AD 5 — Chemical Dependency: Prevention and Education 1.5 Units
27 hours lecture. Degree Appropriate, CSU
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. Evaluates current prevention programs and the necessary steps for developing, funding and managing a program.

AD 6 — Dual Diagnosis 3 Units
54 hours lecture. Degree Appropriate, CSU
Overview of the complex interactions of mental disorders and chemical dependency. Reviews and examines the key areas involving dual diagnosis: definition, diagnosis, treatment and aftercare.

AD 8 — Group Process and Leadership 3 Units
54 hours lecture. Degree Appropriate
Advisory: AD 1, AD 2, AD 3 taken prior and AD 4, AD 5, AD 6 taken prior or concurrently
Introduces the theory and practice of group counseling, the group process and dynamics of group interaction.
AD 9 — Family Counseling  
3 Units  
54 hours lecture.  
Degree Appropriate  
Advisory: AD 1, AD 2, AD 3 taken prior and AD 4, AD 5, AD 6 taken prior or concurrently  
Introduces the theory and practice of family counseling. Topics include family systems and dynamics, effects of chemical dependency, and counseling techniques.

AD 10 — Client Record and Documentation  
1.5 Units  
Spring Semester  
27 hours lecture.  
Degree Appropriate  
Advisory: AD 1, AD 2, AD 3 taken prior and AD 4, AD 5, AD 6 taken prior or concurrently  
Identifies documentation methods required by government regulatory bodies in clinical records. Emphasis on biopsychosocial history.

AD 11 — Techniques of Intervention and Referral  
3 Units  
54 hours lecture.  
Degree Appropriate  
Advisory: AD 1, AD 2, AD 3 taken prior and AD 4, AD 5, AD 6 taken prior or concurrently  
Study and practice techniques used for crisis and beginning counseling, intake interviewing and referral. Using an experiential format, participants will learn and practice skills in attentive listening, recognizing and responding to different levels of client communication.

AD 13 — Internship/Seminar  
3.5 Units  
(May be taken for Credit/No Credit only.)  
27 hours lecture.  
Degree Appropriate, CSU  
Advisory: AD 1, AD 2, AD 3, AD 4, AD 5, AD 6, and six units of Restricted Electives taken prior and AD 8, AD 9, AD 10, AD 11 taken prior or concurrently  
The first of a two-semester sequence which places students in Alcohol/Drug Abuse agencies and organizations. This first semester emphasizes growth in self-awareness and professionalism, interviewing skills and group process skills.

AD 14 — Advanced Internship/Seminar  
3.5 Units  
(May be taken for Credit/No Credit only.)  
27 hours lecture.  
Degree Appropriate, CSU  
Advisory: AD 10 and AD 13  
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.
AMLA 59 — American Language Prepositions 1 Unit
(May be taken two times for credit.) Pre-Collegiate
(May be taken for option of letter grade or Credit/No Credit.)
18 hours lecture.
Designed to help non-native learners of English practice their use of prepositions in spoken and written English. Students will analyze prepositions and idiomatic expressions through reading and will apply their knowledge to written work. Students who repeat this course will improve skills through further instruction and practice.

AMLA 60 — American Language Verb Review III 1 Unit
(May be taken two times for credit.) Pre-Collegiate
(May be taken for option of letter grade or Credit/No Credit.)
18 hours lecture.
Advanced work on gerunds, infinitives and participles for non-native English students. Exercises and writing practice will emphasize improved verbal usage in writing. Students who repeat this course will improve skills through further instruction and practice.

AMLA 61 — American Language Word Forms 1 Unit
(May be taken two times for credit.) Pre-Collegiate
(May be taken for option of letter grade or Credit/No Credit.)
18 hours lecture.
Helps non-native speakers of English practice noun, verb, adjective and adverb word forms in spoken and written English. Students who repeat the course will improve skills by further instruction and practice.

ANATOMY & PHYSIOLOGY

ANAT 10A — Introductory Human Anatomy 4 Units
54 hours lecture. Degree Appropriate, CSU, UC
54 hours lab.
A systematic study of the macroscopic and microscopic structures of the human body. Emphasis on cell structures, skeletal, muscular, respiratory, circulatory, nervous, digestive, excretory, endocrine, and reproductive systems.

ANAT 10B — Introductory Human Physiology 4 Units
54 hours lecture. Degree Appropriate, CSU, UC
54 hours lab.
Prerequisite: ANAT 10A or ANAT 35
Advisory: CHEM 10 or CHEM 40
An integrated study of the function of and interaction between the skeletal, muscular, respiratory, circulatory, nervous, digestive, excretory (including electrolyte and acid-base balance), endocrine, and reproductive systems (including human genetics and embryology).

ANAT 35 — Human Anatomy 5 Units
54 hours lecture. Degree Appropriate, CSU, UC
108 hours lab.
Structure of the organ systems at the gross, subgross, and microscopic levels based on human material and dissection of the cat. Designed to serve as an introduction to vertebrate embryology.

ANAT 36 — Human Physiology 5 Units
Degree Appropriate, CSU, UC
(CAN BIOL 12)
ANAT 35+36 = CAN BIOL SEQ B
54 hours lecture.
108 hours lab.
Prerequisite: ANAT 35 and CHEM 10 or CHEM 40 or one year of high school chemistry
Extensive study of human physiology at the cellular and molecular levels covering muscular, nervous, circulatory, respiratory, renal, digestive, endocrine, and reproductive systems. Includes regulation and integration of organ systems where appropriate.

ANAT 40 — Human Prosection 2 Units
(May be taken four times for credit.) Degree Appropriate, CSU
108 hours lab.
Prerequisite: Completion of ANAT 35
Techniques for human prosection. Regional exploration of the human organ systems at the gross level.

ANAT 50 — Basic Anatomy and Physiology 3 Units
Degree Appropriate
Introduction to human anatomy and physiology by systems, with brief descriptions of biochemistry, cell biology, and molecular biology. Upon completion, students will understand normal functions of major human organ systems and be able to recognize pathologies.

ANTH 1 — Biological Anthropology 3 Units
Degree Appropriate, CSU, UC
(CAN ANTH 4)
54 hours lecture.
Prerequisite: Eligibility for ENGL 68
Scientific study of human evolution. Students will generate and test hypotheses using the techniques and materials of biological anthropology. Includes genetic observations and calculations, osteological techniques and measurements, and primate behavior observations. One field trip to a zoo for primate observation is required.

ANTH 3 — Archaeology 3 Units
Degree Appropriate, CSU, UC
(May be taken for option of letter grade or Credit/No Credit.)
54 hours lecture.
Prerequisite: Eligibility for ENGL 68
Introduction to the aims, methods and ethics of archaeological research and their application to the archaeological record, in contrast to popular depictions of archaeology. Evolution of culture from the earliest stone toolmakers to the primary civilizations of the Old and New Worlds, emphasizing invention and spread of agriculture and the impact of this change on prehistoric cultures.

ANTH 5 — Principles of Cultural Anthropology 3 Units
Degree Appropriate, CSU, UC
(CAN ANTH 4)
54 hours lecture.
The anthropological approach to the study of human behavior from a cross cultural, comparative, and an evolutionary perspective. An exploration of the languages, economics, sociopolitical systems, religions, and world views of diverse world cultures. A technical presentation is stressed as this course is designed for Social Sciences majors.

ANTH 22 — General Cultural Anthropology 3 Units
Degree Appropriate, CSU, UC
An introductory course to explore the nature of culture and how cultural anthropologists study cultural phenomena such as language, personality, subsistence, economics, social and political organization, marriage, kinship systems, religion, the arts, and culture change. A substantial amount of case material will be drawn from at least three of the following: African Americans, indigenous peoples of the United States, Asian Americans, Chicano/Latino Americans, and European Americans. This course may meet the cultural diversity requirement at transfer universities.

ANTH 30 — The Native American 3 Units
Degree Appropriate, CSU, UC
54 hours lecture.
Surveys the prehistory and history of Native Americans. An overview of the classification system used to organize particular groups into culture areas related to adaptive strategies. Identification of world contributions and contemporary issues for modern Native Americans.
### Course Descriptions

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<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Units</th>
<th>Description</th>
</tr>
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<tbody>
<tr>
<td>ANTH 99</td>
<td>Special Projects in Anthropology</td>
<td>2</td>
<td>(May be taken four times for credit.)</td>
</tr>
<tr>
<td>ARCH 10</td>
<td>Design I – Elements of Design</td>
<td>3</td>
<td>36 hours lecture. 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>36 hours lecture. 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 12</td>
<td>Architectural Materials and Specifications</td>
<td>3</td>
<td>54 hours lecture. 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>36 hours lecture. 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>54 hours lecture. 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>36 hours lecture. Methods and techniques used in the development of architectural construction documents for light frame structures (Type V construction) including construction theory, practice, and working drawings. Portfolio will be produced.</td>
</tr>
<tr>
<td>ARCH 16</td>
<td>Basic CAD and Computer Application</td>
<td>4</td>
<td>(May be taken two times for credit.) Basic CAD (Computer Aided Design and Drafting) and computer application in architecture, engineering and related fields (including basic word processing, spreadsheet, CAD and presentation applications). Students who repeat this course will improve skills through further instruction and practice.</td>
</tr>
<tr>
<td>ARCH 18</td>
<td>Architectural Computer Aided Design Elements</td>
<td>3</td>
<td>(May be taken two times for credit.) 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. Students who repeat this course will improve skills through further instruction and practice.</td>
</tr>
<tr>
<td>ARCH 21</td>
<td>Design II – Architectural Design</td>
<td>3</td>
<td>36 hours lecture. Application of methods and theory used in architectural design projects. Includes graphic technique, design process, site analysis, presentation drawings and construction principles. Portfolio will be produced.</td>
</tr>
<tr>
<td>ARCH 23</td>
<td>Architectural Presentations</td>
<td>3</td>
<td>36 hours lecture. Advanced design seminars and complex building design projects in architecture, including portfolio development. Students who repeat this course will improve skills through further instruction and practice.</td>
</tr>
<tr>
<td>ARCH 26</td>
<td>Architectural CAD Working Drawings</td>
<td>3</td>
<td>(May be taken three times for credit.) 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.</td>
</tr>
<tr>
<td>ARCH 27</td>
<td>Design III – Environmental Design</td>
<td>3</td>
<td>36 hours lecture. Application of theory and principles of environmental design as applied to architecture, landscape architecture, urban design, urban planning and (civil) engineering. Portfolio will be produced.</td>
</tr>
<tr>
<td>ARCH 28</td>
<td>Architectural CAD 3-D Illustration and Animation</td>
<td>3</td>
<td>(May be taken three times for credit.) Intermediate to advanced architectural CAD in 3-D illustration, rendering and animation. Virtual “walk-through” and “fly-through” of interior/ exterior 3-D models with photo-realistic materials and lighting will be produced. Students who repeat this course will improve skills through further instruction and practice.</td>
</tr>
<tr>
<td>ARCH 29</td>
<td>Design IV – Advanced Project</td>
<td>3</td>
<td>(May be taken two times for credit.) Advanced design seminars and complex building design projects in architecture, including portfolio development. Students who repeat this course will improve skills through further instruction and practice.</td>
</tr>
<tr>
<td>ARCH 31</td>
<td>World Architecture I</td>
<td>3</td>
<td>54 hours lecture. Development of architecture including ancient Egypt, Europe through the Middle Ages, and classic civilizations of Asia and the Americas. Influence of geography, religion, and socio-economic movements on architecture.</td>
</tr>
</tbody>
</table>
Course Descriptions

ART HISTORY

AHIS 1 — Understanding the Visual Arts 3 Units
54 hours lecture. Degree Appropriate, CSU, UC
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
54 hours lecture. Degree Appropriate, CSU, UC
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 2 — Topics in Visual Art and Culture 3 Units
54 hours lecture. Degree Appropriate, CSU, UC
Advisory: Eligibility for ENGL 1A
A thematic introduction to selected works of art and visual culture, providing a framework for understanding the relationship between art and society and the differing ways art can be viewed. A global and/or interdisciplinary approach will be taken. Topics will vary with instructor.

AHIS 5 — History of Western Art: Renaissance Through Modern 3 Units
54 hours lecture. Degree Appropriate, CSU, UC
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 6 — History of Modern Art 3 Units
54 hours lecture. Degree Appropriate, CSU, UC
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 9 — History of Asian Art 3 Units
54 hours lecture. Degree Appropriate, CSU, UC
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 and Architecture 3 Units
54 hours lecture. Degree Appropriate, CSU
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>
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<th>Units</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AHIS 11</td>
<td>History of African, Oceanic, and Native American</td>
<td>3</td>
<td>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.</td>
</tr>
<tr>
<td>AHIS 12</td>
<td>History of Pre-Columbian Art</td>
<td>3</td>
<td>The arts of Pre-Columbian Mesoamerica and Andean South America. Major monuments of sculpture, painting, architecture, ceramics and textiles from civilizations including the Maya, Aztecs, and Inca will be studied in their cultural contexts.</td>
</tr>
<tr>
<td>AHIS 12H</td>
<td>History of Pre-Columbian Art — Honors</td>
<td>3</td>
<td>The arts of Pre-Columbian Mesoamerica and Andean South America. Major monuments of sculpture, painting, architecture, ceramics and textiles from civilizations including the Maya, Aztecs, and Inca will be studied in their cultural contexts.</td>
</tr>
<tr>
<td>AHIS 09</td>
<td>Special Projects in Art History</td>
<td>2</td>
<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>
</tr>
<tr>
<td>ANIM 104</td>
<td>Drawing Fundamentals</td>
<td>3</td>
<td>Emphasizes creative expression through the use of drawing media and techniques. Emphasis is placed on use of light logic, atmospheric and linear perspective. Includes basic drawing skills and methods of achieving compositional integrity through objective analysis and synthesis. Students who repeat this course will improve skills through further instruction and practice.</td>
</tr>
<tr>
<td>ANIM 105</td>
<td>Figure in Motion</td>
<td>3</td>
<td>Drawing human figures in motion. Anatomical landmarks, proportion, light and shadow, line composition, figure/ground relationship, the interaction of form and content, and the expressive potential of the human figure will be explored. Students who repeat this course will improve skills through further instruction and practice.</td>
</tr>
<tr>
<td>ANIM 106</td>
<td>Principles of Animation</td>
<td>3</td>
<td>Explores the principles of drawing for traditional animation concentrating on the mechanics of movement, timing, and emotion for the creation of expressive line drawings. Students who repeat this course will improve skills through further instruction and practice.</td>
</tr>
<tr>
<td>ANIM 107</td>
<td>Advanced Principles of Animation</td>
<td>3</td>
<td>Advanced principles of animation including mechanics of motion, weighted movement, lip sync and expression applied to story, staging, and character development. Focus will be on the animated film process from script to storyboards, timing sheets, key posing, inbetweening and clean up through the completion of a final animation. Students who repeat this course will improve skills through further instruction and practice.</td>
</tr>
<tr>
<td>ANIM 108</td>
<td>Storyboarding</td>
<td>3</td>
<td>Storyboarding for animation including script, idea and action development. Staging, expression, emotional appeal, camera movement, dialogue and character enhancement and development will be included. Students who repeat this course will improve skills through further instruction and practice.</td>
</tr>
<tr>
<td>ANIM 109</td>
<td>Animation Background Layout</td>
<td>3</td>
<td>Basic principles of design and composition as applied to layout and background design for animation. Drawing and painting techniques exploring rendering, modeling, light logic, perspective, color, space and environments are included. Students who repeat this course will improve skills through further instruction and practice.</td>
</tr>
<tr>
<td>ANIM 110</td>
<td>Background Painting</td>
<td>3</td>
<td>Analysis and production of environments for scenes in animation. Emphasis on the study of light logic and color as they pertain to the creation of atmosphere, mood and environments. Students who repeat this course will improve skills through further instruction and practice.</td>
</tr>
</tbody>
</table>

### ART: ANIMATION

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANIM 111</td>
<td>Animal Drawing</td>
<td>1.5</td>
<td>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. Students who repeat this course will improve skills through further instruction and practice.</td>
</tr>
<tr>
<td>ANIM 112</td>
<td>Portfolio</td>
<td>1.5</td>
<td>Production of a portfolio representative of student interest, strength and skill for entry into animation fields, professional schools, or baccalaureate institutions. Selection of work for a portfolio will be determined by requirements of the animation specialty and institution to which it is directed. Students who repeat this course will improve skills through further instruction and practice.</td>
</tr>
</tbody>
</table>
ANIM 120 — Script Development for Animation 3 Units
(May be taken four times for credit.) Degree Appropriate
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. Students who repeat this course will improve skills through further instruction and practice.

ANIM 130 — Introduction to 3-D Computer Animation 3 Units
(May be taken four times for credit.) Degree Appropriate
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 storyboard developed for scene sequencing are included. Students who repeat this course will improve skills through further instruction and practice.

ANIM 132 — Modeling, Texture Mapping and Lighting 3 Units
(May be taken four times for credit.) Degree Appropriate
36 hours lecture.
72 hours lab.
Advisory: ANIM 130
Explores 3-D poly-spline modeling and texture mapping and rendering for realistic perspective, reflections, transparency, and background and environmental building using the Alias MAYA software. Includes camera animation with stage and environmental scenes featuring fly-throughs and colored lighting effects. Students who repeat this course will improve skills through further instruction and practice.

ANIM 134 — Visual Effects I: Dynamics 1.5 Units
(May be taken four times for credit.) Degree Appropriate
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. Students who repeat this course will improve skills through further instruction and practice.

ANIM 135 — Visual Effects II: Particle Systems 1.5 Units
(May be taken four times for credit.) Degree Appropriate
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. Students who repeat this course will improve skills through further instruction and practice.

ANIM 136 — Animation Environment Layout 3 Units
(May be taken four times for credit.) Degree Appropriate
36 hours lecture.
72 hours lab.
Advisory: ANIM 132
Create a digital 3D environment. Design, model, texture, and light a 3D digital environment for a computer graphics game, TV program or film. Students who repeat this course will improve skills through further instruction and practice.

ANIM 137A — Work Experience in New Digital Media 1 Unit
(May be taken four times for credit.) Degree Appropriate
75 hours lab.
Advisory: Completion of the first and second semester of the Animation Program
This course provides college credit and instructional guidance in conjunction with work experience in areas of New Digital Media at an approved worksite related to a certificate or degree program of study. 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 — Work Experience in New Digital Media 2 Units
(May be taken four times for credit.) Degree Appropriate
150 hours lab.
Advisory: Completion of the first and second semester of the Animation Program
This course provides college credit and instructional guidance in conjunction with work experience in areas of New Digital Media at an approved worksite related to a certificate or degree program of study. 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 137C — Work Experience in New Digital Media 3 Units
(May be taken four times for credit.) Degree Appropriate
225 hours lab.
Advisory: Completion of the first and second semester of the Animation Program
This course is designed to provide college credit and instructional/advisory guidance in conjunction with actual on-the-job experience in areas of New Digital Media at an approved worksite related to a certificate or degree program of study. 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 145 — Advanced 3-D Modeling 3 Units
(May be taken four times for credit.) Degree Appropriate
36 hours lecture.
72 hours lab.
Advisory: ANIM 132
An advanced course in 3-D modeling with a focus on designing, modeling, and rigging a character for animation. Students who repeat this course will improve skills through further instruction and practice.

ANIM 146 — Advanced 3-D Animation 3 Units
(May be taken four times for credit.) Degree Appropriate
36 hours lecture.
72 hours lab.
Advisory: ANIM 132
Animation of a pre-selected 3-D dynamic environment project and development of characteristics and personality of 3-D characters through animation. Students who repeat this course will improve skills through further instruction and practice.

ANIM 148 — Demo-Reel 1.5 Units
(May be taken four times for credit.) Degree Appropriate
18 hours lecture.
36 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. Students who repeat this course will improve skills through further instruction and practice.

ANIM 172 — Motion Graphics With After Effects 3 Units
(May be taken for option of letter grade or Credit/No Credit.) Degree Appropriate
(May be taken for option of letter grade or Credit/No Credit.) Degree Appropriate
36 hours lecture.
72 hours lab.
Prerequisite: ARTC 70
Explores the creative and technical processes for building motion-graphics using After Effects and/or other industry appropriate software. 2D and 3D compositing, animation, audio/visual effects, editing and rendering of motion-graphics for video, CD and DVD formats will be taught. Students who repeat this course will improve skills through further instruction and practice.

ANIM 175 — Web Animation With Flash 3 Units
(May be taken two times for credit.) Degree Appropriate
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. Students who repeat this course will improve skills through further instruction and practice.
### Course Descriptions

#### ART: BASIC STUDIO ARTS

**ARTB 1 — Understanding the Visual Arts**  
3 Units  
54 hours lecture.  
Degree Appropriate, CSU, UC  
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 ARTB 1 and AHIS 1.

**ARTB 14 — Basic Studio Arts**  
3 Units  
36 hours lecture.  
Degree Appropriate, CSU, UC  
72 hours lab.  
Prerequisite: Eligibility for ENGL 68  
An entry level course designed for non-art majors emphasizing creative expression through the visual arts. Painting, drawing, printmaking and sculpture are explored to introduce the student through various media to the arts.

#### ART: CAREER ARTS & GRAPHIC DESIGN

**ARTC 60 — Graphic Design: Lettering and Typography**  
3 Units  
36 hours lecture.  
Degree Appropriate, CSU, UC  
72 hours lab.  
Prerequisite: Eligibility for ENGL 68  
An entry level course emphasizing creative expression through a variation of design concepts, letter forms and style variation. Emphasis is placed on tools and techniques as applied to comprehensive graphic design images.

**ARTC 66 — Portfolio**  
3 Units  
36 hours lecture.  
Degree Appropriate, CSU, UC  
72 hours lab.  
Prerequisite: Completion of a minimum of 15 semester units in Advertising Design, Architectural Design, Art, Fashion Merchandising, Industrial Design, Interior Design orPhotographics.  
This course aids individuals from any of the visual art disciplines to assemble a portfolio, book, or package of works of art (that represents their individual development, interests and/or strengths) for use to enter a four-year institution, professional art school, or a professional field of choice.

**ARTC 70 — Computer Graphics: Introduction**  
3 Units  
36 hours lecture.  
Degree Appropriate, CSU  
72 hours lab.  
Introduces basic art, design and color theory principles to the application of 2-dimensional computer graphics. Explores basic computer concepts applied to graphic projects utilizing professional imaging software programs. Introduces the use of color scanner, digitized artist tablet, laser and color printers. Software: Adobe Photoshop, Adobe Illustrator.

**ARTC 74 — Computer Graphics: Web Design**  
3 Units  
36 hours lecture.  
72 hours lab.  
Prerequisite: ARTC 70  
Advisory: COMP 13  
Professional design concepts applied to the common elements of Web site design and development including page and site design, usability, editing and formatting, graphics preparation, multimedia technologies, tables, forms, frames, cascading style sheets (CSS). An emphasis will be placed on the exploration of new tools and concepts of Web design including Flash navigation, interactivity, animation, and video. Students who repeat this course will improve skills through further instruction and practice.

**ARTC 76 — Work Experience in Advertising Design/ Illustration**  
3 Units  
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 Advertising Design/ Illustration**  
2 Units  
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 78C — Work Experience in Advertising Design/ Illustration**  
3 Units  
225 hours lab.  
Prerequisite: Compliance with Work Experience regulations as designed 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 161 — Graphic Design: Layout**  
3 Units  
36 hours lecture.  
72 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 media and layout design-related software to explore concept utilization and production, visualization, and professional presentation techniques.

**ARTC 165 — Illustration**  
3 Units  
36 hours lecture.  
72 hours lab.  
Prerequisite: 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.
### ART: COMPUTER GRAPHICS

**ARTC 171 — Computer Graphics 2: Advanced Layout**  
3 Units  
(May be taken two times for credit.)  
Degree Appropriate, 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. Students who repeat this course will improve skills through further instruction and practice.

### ART: GALLERY & PROFESSIONAL PRACTICES

**ARTG 20 — Art, Artists and Society**  
3 Units  
36 hours lecture.  
72 hours lab.  
Prerequisite: ARTG 70  
Explore art as a creative process and the role of an artist in contemporary and past societies approached through analysis of art exhibitions and artists studio visitations. Emphasis on visual principles and content of historic and contemporary art works. Examines the dynamic and history of public art display and the nature of exhibition design with an overview of art movements, styles, symbols, theories and terms.

**ARTG 21A — Introduction to Exhibition Production**  
3 Units  
(May be taken two times for credit.)  
Degree Appropriate, 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 art emphasizing contemporary art, theories and media. Students who repeat this course will improve skills through further instruction and practice.

**ARTG 21B — Intermediate Exhibition Production**  
3 Units  
(May be taken two times for credit.)  
Degree Appropriate, 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 themes, theories, movements and media in the context of an art exhibition production. Students who repeat this course will improve skills through further instruction and practice.

**ARTG 22A — Exhibition Design and Art Gallery Operation**  
1 Unit  
(May be taken two times for credit.)  
Degree Appropriate  
72 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.

**ARTG 22B — Exhibition Design and Art Gallery Operation**  
2 Units  
(May be taken two times for credit.)  
Degree Appropriate  
150 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.

**ARTG 22C — Exhibition Design and Art Gallery Operation**  
3 Units  
(May be taken two times for credit.)  
Degree Appropriate  
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: THREE-DIMENSIONAL STUDIO ARTS

**ARTS 22 — Design: Three-Dimensional**  
3 Units  
(CAN ART 16)  
Degree Appropriate, CSU, UC  
36 hours lecture.  
72 hours lab.  
Prerequisite: Eligibility for ENGL 68  
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.

**ARTS 30A — Ceramics: Beginning**  
3 Units  
Degree Appropriate, CSU, UC  
36 hours lecture.  
72 hours lab.  
Introduction to clay, glazed and firing through projects that employ techniques in hand building and on the wheel. Emphasis is placed on developing skills, vocabulary and analysis of form, function and aesthetics through projects and oral and written criticism.

**ARTS 30B — Ceramics: Beginning**  
3 Units  
(May be taken for option of letter grade or Credit/No Credit.)  
Degree Appropriate, CSU, UC  
36 hours lecture.  
72 hours lab.  
Prerequisite: ARTS 30A  
A continuation into the study of clay, glazed 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 Appropriate, 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
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
36 hours lecture. 72 hours lab.
Introduction to clay, glazes and firing through projects that are hand built. Emphasis is on developing skills and vocabulary and analysis of form, function, aesthetics and craftsmanship through projects, discussion and oral/written criticism.

ARTS 40A — Sculpture: Beginning 3 Units
(CAN ART 12) 36 hours lecture. 72 hours lab.
An overview of traditional and contemporary approaches to sculpture. Emphasizes principles of sculptural design and concept development. Includes exploration of technique and materials as an integral part of creative expression.

ARTS 40B — Sculpture: Beginning 3 Units
(May be taken two times for credit.) 36 hours lecture. 72 hours lab.
Prerequisite: ARTS 40A
Advanced projects in subtractive, additive and manipulative approaches are explored. Students who repeat this course will improve skills by further instruction and practice.

ARTS 41A — Sculpture: Life 3 Units
36 hours lecture. 72 hours lab.
Modeling from the human figure with emphasis on composition, gesture, motion and human anatomy as it informs sculptural form. Development of perceptual and technical skills in clay modeling from the human figure.

ARTS 41B — Sculpture: Life 3 Units
(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: Mold Making 3 Units
(May be taken two times for credit.) 36 hours lecture. 72 hours lab.
Construction and use of flexible and plaster molds. Students who repeat this course will improve skills by further instruction and practice.

ARTS 42B — Sculpture: Special Effects Makeup 3 Units
(May be taken two times for credit.) 36 hours lecture. 72 hours lab.
Advisory: ARTS 41 and/or ARTS 42
Modeling, molding, casting and application of special effects makeup appliances and masks to the human figure. Emphasis on human anatomy as it informs sculptural form and specialized molding and casting techniques and materials. Students who repeat this course will improve skills by further instruction and practice.

ARTS 46 — Sculpture: Special Effects Makeup 3 Units
(May be taken two times for credit.) 36 hours lecture. 72 hours lab.
Advisory: ARTS 41 and/or ARTS 42
Modeling, molding, casting and application of special effects makeup appliances and masks to the human figure. Emphasis on human anatomy as it informs sculptural form and specialized molding and casting techniques and materials. Students who repeat this course will improve skills by further instruction and practice.

ARTD 15A — Drawing: Beginning 3 Units
(CAN ART 8) 36 hours lecture. 72 hours lab.
Prerequisite: ARTD 15A
Drawing emphasizing further development of perceptual and technical skills attained in ARTD 15A. Students will advance their abilities in dry and fluid media, while expanding their use of the formal elements and principles in both representational and expressionistic styles.

ARTD 15B — Drawing: Beginning 3 Units
36 hours lecture. 72 hours lab.
Prerequisite: ARTD 15A
Drawing emphasizing further development of perceptual and technical skills attained in ARTD 15A. Students will advance their abilities in dry and fluid media, while expanding their use of the formal elements and principles in both representational and expressionistic styles.

ARTD 17A — Drawing: Life 3 Units
2007-08 Mt. San Antonio College Catalog
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
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 20 — Design: Two Dimensional 3 Units
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 all forms of art through lecture, discussion, oral and written criticism and testing as they apply to studio projects in design for all disciplines of the arts. Study will emphasize the fundamental organization and workings of the two-dimensional picture plane in black/white and achromatic value and basic color mixing. Students who repeat this course will improve skills through further study and practice.

ARTD 21 — Design: Color and Composition 3 Units
Spring Semester Degree Appropriate, CSU, UC
18 hours lecture.
Prerequisite: ARTD 20 or equivalency determined by a portfolio review
Synthesizes color theory and relationships of pigment and light. Emphasis will be 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 23A — Drawing: Head and Hands 1.5 Units
Spring Semester Degree Appropriate, CSU, UC
18 hours lecture.
Prerequisite: ARTD 15A or ANIM 104
Contemporary and traditional approaches to constructing images of the human head and hands. Anatomy, proportion, light logic, composition, expression and the interaction of form and content. Students who repeat this course will improve skills through further instruction and practice.
ARTD 25A — Painting: Beginning
3 Units
(CAN ART 10)
Degree Appropriate, CSU, UC
36 hours lecture.
72 hours lab.
Emphasizes creative self-expression through the painting media.
Students will develop the ability to conceptualize and solve compositional and technical painting problems.

ARTD 25B — Painting: Beginning
3 Units
36 hours lecture.
Degree Appropriate, CSU, UC
Prerequisite: ARTD 25A
An extension and expansion of principles and techniques introduced in ARTD 25A. More emphasis is placed on personal approach and individual expression.

ARTD 26A — Painting: Intermediate
3 Units
36 hours lecture.
Degree Appropriate, CSU, UC
Prerequisite: ARTD 25B
Develop a working knowledge of painting media. Painting problems are studied in order to broaden the student's knowledge of painting organization.

ARTD 26B — Painting: Intermediate
3 Units
36 hours lecture.
Degree Appropriate, CSU, UC
Prerequisite: ARTD 26A
Extends and expands the principles, techniques and painting problems that were introduced in ARTD 26A. More emphasis is placed on personal approach and expression.

ARTD 27 — Painting: Watercolor
3 Units
(May be taken two times for credit.)
Degree Appropriate, CSU, UC
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 related to transparent watercolor methods as well as exploration into opaque and mixed-media approaches. Students who repeat this course will improve skills through further instruction and practice.

ARTD 43 — Printmaking: Silk-Screen and Intaglio
3 Units
(CAN ART 20)
Degree Appropriate, CSU, UC
Prerequisite: ARTB 14, or ARTD 15A, or ARTD 17A, or ARTD 20
Techniques of making fine-art original prints using the processes of stencil and intaglio hand printing. Screen prints, etchings, and aquatints are emphasized as well as other related methods and new technologies. Students who repeat this course will improve skills through further instruction and practice.

ARTD 44 — Printmaking: Relief and Lithography
3 Units
(CAN ART 20)
Degree Appropriate, CSU, UC
Prerequisite: ARTD 43 or ARTD 44 = CAN ART 20
36 hours lecture.
72 hours lab.
Prerequisite: ARTB 14 or ARTD 15A or ARTD 17A or ARTD 20
Development of the creative techniques of making fine art original prints using the processes of relief and planography hand printing. Woodcuts, linoleum cuts, monotypes, embossments, collagraphs, stone and aluminum plate lithography are explored. Students who repeat this course will improve skills through further instruction and practice.

ARTD 45 — Printmaking: Silk-Screening
3 Units
(May be taken two times for credit.)
Degree Appropriate, CSU, UC
Prerequisite: ARTD 43 or ARTD 44 = CAN ART 20
36 hours lecture.
72 hours lab.
Prerequisite: ARTB 14 or ARTD 15A or ARTD 17A or ARTD 20
An intensive study in the use of silk-screening as an art form. Tusch-glue, direct block cuts, paper and lacquer stencils, and photographic method will be emphasized. Students who repeat this course will improve skills through further instruction and practice.

ASTR 8 — Introduction to Stars, Galaxies, and the Universe
3 Units
54 hours lecture.
Degree Appropriate, CSU
Introduction to astronomy with emphasis on the structure and evolution of stars, galaxies, and the universe. Field trips required.

ASTR 90T — Topics in Astronomy
3 Units
(May be taken four times for credit.)
Degree Appropriate
54 hours lecture.
Explores various topics of astronomy.

ASTR 99 — Special Projects in Astronomy
2 Units
Spring Semester
Degree Appropriate, CSU
May be taken for option of letter grade or Credit/No Credit.

BIOL 1 — General Biology
4 Units
54 hours lecture.
Degree Appropriate, CSU, UC
Prerequisite: Eligibility for ENGL 1A
An introduction to the major principles and concepts of biology, including cellular biology, energy relationships, biological systems, heredity, evolution and ecology. BIOL 1 is recommended for non-majors. BIOL 4 is recommended for biology majors and those majors requiring a more rigorous biology background.

BIOL 2 — Plant and Animal Biology
4 Units
54 hours lecture.
Degree Appropriate, CSU, UC
Prerequisite: BIOL 1 or BIOL 4 and MATH 71 or 2 years of high school algebra (C or better)
Basic structures and functions of plants and animals including concepts in systematics, evolution, physiology, ecology, and biotic relationships.

BIOL 3 — Ecology and Field Biology
4 Units
54 hours lecture.
Degree Appropriate, CSU, UC
Prerequisite: BIOL 1 or BIOL 4
Identification and ecological relationships of common local plants and animals. Emphasizes evolutionary relationships; ecology including animal behavior, communities, ecosystems, wilderness and wildlife preservation, and population dynamics. Techniques of collecting and preserving. Many laboratory meetings conducted off campus; most trips require walking/hiking. Includes one weekend and one all day field trip.

ASTR 5 — Introduction to Astronomy
3 Units
54 hours lecture.
Degree Appropriate, CSU, UC
Prerequisite: Eligibility for ENGL 1A
A non-technical survey of the universe. Fundamental concepts and facts of astronomy. Topics include the origin and evolution of planets, stars, and galaxies; results of space exploration and modern cosmology. Enroll in ASTR 5L to receive laboratory science credit. Field trips may be required.

ASTR 8 — Introduction to Stars, Galaxies, and the Universe
3 Units
54 hours lecture.
Degree Appropriate, CSU
Introduction to astronomy with emphasis on the structure and evolution of stars, galaxies, and the universe. Field trips required.

ASTR 90T — Topics in Astronomy
3 Units
(May be taken four times for credit.)
Degree Appropriate
54 hours lecture.
Explores various topics of astronomy.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Credit Type</th>
<th>Prerequisites</th>
<th>Corequisites</th>
<th>Course Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 4</td>
<td>Biology for Majors</td>
<td>4</td>
<td>Degree Appropriate, CSU, UC</td>
<td>(CAN BIOL 2)</td>
<td></td>
<td>COREQUISITE: BIOL 6 (May have been taken previously) 108 hours lecture. 18 hours activity. Prerequisite: CHEM 10 or CHEM 40 or one year of high school chemistry (C or better), AND MATH 71 or two years of high school algebra (C or better) or equivalent. 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.</td>
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<tr>
<td>BIOL 4H</td>
<td>Biology for Majors — Honors</td>
<td>4</td>
<td>Degree Appropriate, CSU, UC</td>
<td>(CAN BIOL 2)</td>
<td></td>
<td>COREQUISITE: BIOL 6 (May have been taken previously) 108 hours lecture. 72 hours lab. Prerequisite: Acceptance into the Honors Program; CHEM 10 or one year of high school chemistry (C or better), AND MATH 71 or two years of high school algebra (C or better) or equivalent. 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.</td>
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<tr>
<td>BIOL 5</td>
<td>Contemporary Health Issues</td>
<td>3</td>
<td>Degree Appropriate, CSU, UC</td>
<td>Providing an overview of contemporary health issues known to affect the quality and longevity of life. Topics include: sexuality and reproduction, stress management, fitness and nutrition, substance use and abuse, and environmental quality. Emphasis is on prevention of illness and injuries. May satisfy the Health Education requirement for a California State Teaching Credential.</td>
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<tr>
<td>BIOL 6</td>
<td>Humans and the Environment</td>
<td>3</td>
<td>Degree Appropriate, CSU, UC</td>
<td>Prerequisite: Eligibility for ENGL 68 Ecological concepts to aid understanding our environmental crisis and determining courses of action to correct the problem. Emphasis will be placed on specific problems of population, pollution, preservation of wildlife and wilderness, and open space. A historical appraisal of human attitudes toward the land and of the necessity of developing a new land ethic.</td>
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<tr>
<td>BIOL 6L</td>
<td>Humans and the Environment Laboratory</td>
<td>2</td>
<td>Degree Appropriate, CSU, UC</td>
<td>Co-requisite: BIOL 6 (May have been taken previously) 108 hours lab. Investigates major principles and problems of humans and the environment in the field and in the biological science laboratory.</td>
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<tr>
<td>BIOL 8</td>
<td>Cell and Molecular Biology</td>
<td>4</td>
<td>Degree Appropriate, CSU, UC</td>
<td>Prerequisite: CHEM 10 or CHEM 40 or one year of high school chemistry (C or better), and MATH 71 or two years of high school algebra (C or better) or equivalent. Introduction to cell and molecular biology including cell organelles, protein structure and function; DNA and RNA structure and functions; protein synthesis; genome organization in viruses, prokaryotes and eukaryotes; gene cloning, protein and DNA technology and applications of genetic engineering.</td>
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<tr>
<td>BIOL 99A</td>
<td>Special Projects in Biology</td>
<td>1</td>
<td>Degree Appropriate, CSU</td>
<td>Prerequisite: Eligibility for ENGL 68 Provides a basic understanding of human development, from conception to death. Concepts, growth, maturation and aging are studied as a natural continuum, influenced by our biophysical and psycho-social environment. Several off-campus sites related to course content will be visited.</td>
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<tr>
<td>BIOL 99B</td>
<td>Special Projects in Biology</td>
<td>2</td>
<td>Degree Appropriate, CSU</td>
<td>Prerequisite: Acceptance into the Honors Program A survey of the biological, behavioral, cultural and ethical aspects of human sexuality. An honors course designed to provide an enriched experience. Students may not receive credit for both BIOL 15 and BIOL 15H.</td>
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<tr>
<td>BIOL 10</td>
<td>Marine Biology</td>
<td>3</td>
<td>Degree Appropriate, CSU, UC</td>
<td></td>
<td>Prerequisite: BIOL 4 or BIOL 4H, and CHEM 50 Introduction to the marine environment including the principles of marine science, biology of marine invertebrates and vertebrates, structure and function of marine ecosystems, and human impact on the ocean. Field trip required.</td>
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<tr>
<td>BIOL 12A</td>
<td>Natural History of California</td>
<td>3</td>
<td>Degree Appropriate, CSU</td>
<td>Fall Semester (May be taken for option of letter grade or Credit/No Credit.) 36 hours lecture. 54 hours lab. Field study of the natural history of the Sierra Nevada and adjacent regions. One 3-day and one 4-day weekend field trip will be required. Students may not receive credit for both BIOL 12A and GEOL 12A.</td>
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<tr>
<td>BIOL 12B</td>
<td>Natural History of California</td>
<td>3</td>
<td>Degree Appropriate, CSU</td>
<td>(May be taken for option of letter grade or Credit/No Credit.) 36 hours lecture. 54 hours lab. Field study of the natural history of the Sierra Nevada and adjacent regions. One 3-day and one 4-day weekend field trip will be required. Students may not receive credit for both BIOL 12B and GEOL 12B.</td>
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<tr>
<td>BIOL 12C</td>
<td>Marine Biology</td>
<td>3</td>
<td>Degree Appropriate, CSU, UC</td>
<td></td>
<td>Provides a basic understanding of human development, from conception to death. Concepts, growth, maturation and aging are studied as a natural continuum, influenced by our biophysical and psycho-social environment. Several off-campus sites related to course content will be visited.</td>
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<tr>
<td>BIOL 13</td>
<td>Human Reproduction, Development and Aging</td>
<td>3</td>
<td>Degree Appropriate, CSU, UC</td>
<td>Prerequisite: Eligibility for ENGL 68 A survey of the biological, behavioral, cultural and ethical aspects of human sexuality. An honors course designed to provide an enriched experience. Students may not receive credit for both BIOL 15 and BIOL 15H.</td>
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<tr>
<td>BIOL 17</td>
<td>Neurobiology and Behavior</td>
<td>3</td>
<td>Degree Appropriate, CSU, UC</td>
<td>54 hours lecture. An integrated analysis of the biological, ecological and evolutionary bases of behavior (ethology). Historical and evolutionary contexts are emphasized through a detailed consideration of the psychobiological, ecological, ontological and sociobiological determinants of animal behavior. Field trip required.</td>
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<tr>
<td>BIOL 20</td>
<td>Marine Biology</td>
<td>3</td>
<td>Degree Appropriate, CSU, UC</td>
<td>54 hours lecture. An introduction to the marine environment including the principles of marine science, biology of marine invertebrates and vertebrates, structure and function of marine ecosystems, and human impact on the ocean. Field trip required.</td>
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<tr>
<td>BIOL 21</td>
<td>Marine Biology Laboratory</td>
<td>1</td>
<td>Degree Appropriate, CSU, UC</td>
<td>54 hours lab. An introduction to the marine environment including the principles of marine science, biology of marine invertebrates and vertebrates, structure and function of marine ecosystems, and human impact on the ocean. Field trip required.</td>
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<tr>
<td>BIOL 99A</td>
<td>Special Projects in Biology</td>
<td>1</td>
<td>Degree Appropriate, CSU</td>
<td>Prerequisite: Eligibility for ENGL 68 Provides a basic understanding of human development, from conception to death. Concepts, growth, maturation and aging are studied as a natural continuum, influenced by our biophysical and psycho-social environment. Several off-campus sites related to course content will be visited.</td>
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<tr>
<td>BIOL 99B</td>
<td>Special Projects in Biology</td>
<td>2</td>
<td>Degree Appropriate, CSU</td>
<td>Prerequisite: Acceptance into the Honors Program A survey of the biological, behavioral, cultural and ethical aspects of human sexuality. An honors course designed to provide an enriched experience. Students may not receive credit for both BIOL 15 and BIOL 15H.</td>
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</table>
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
90 hours lecture. Degree Appropriate, CSU, UC
Prerequisite: BUSA 11 or eligibility for MATH 51
Advisory: Eligibility for ENGL 1A
Introduction to financial accounting required of all Business Administration and Accounting majors 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.

BUSA 8 — Principles of Accounting – Managerial 5 Units
90 hours lecture. Degree Appropriate, CSU, UC
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
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
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
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
54 hours lecture.
Prerequisite: BUSA 68 or eligibility for MATH 50
Introduction to electronic calculators, using the touch method to solve basic and accounting problems. Focuses on the application of calculator features to specific business concepts including banking records, payroll, invoice pricing and inventory.

BUSA 58 — Federal Income Tax Law 3 Units
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
54 hours lecture.
Pre-College
Reviews addition, subtraction, multiplication, division, decimals, percentages, fractions, sign numbers, equations and problem solving.

BUSA 70 — Payroll and Tax Accounting 3 Units
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 — Financial Planning 3 Units
54 hours lecture.
Prerequisite: BUSA 68 or eligibility for MATH 50
Functional approach to personal finance, including budget systems, consumer credit, health care and insurance, debt collection systems, status obligation, accumulating reserves. Examines short-term and long-term financial goals. Applicable for personal and professional use. Students may not earn credit for both BUSA 71 and FCS 80.

BUSA 72 — Bookkeeping – Accounting 5 Units
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 will be required.

BUSA 75 — Using Microcomputers in Financial Accounting 1 Unit
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
18 hours lecture.
Prerequisite: BUSA 7 or BUSA 72
Analyzes financial data and prepares managerial accounting reports using Excel software. Development of “what-if” formulas to be used as an aid in decision-making. Manufacturing and consolidation worksheets, financial statement analysis, and statement of cash flows.

BUSA 81 — Work Experience in Accounting 1 Unit
(May be taken four times for credit.)
Prerequisite: Compliance with Work Experience regulations as designated in the College Catalog
Advisory: BUSA 7 or BUSA 72
Provides accounting students with actual on-the-job experience in an approved work site which is related to classroom-based learning. A minimum of 75 paid clock hours or 60 non-paid clock hours per semester is required for each one unit of credit. Work experience placement is not guaranteed but assistance is provided. Students who repeat this course will improve skills through further instruction and practice.
BUS 1A — Principles of Economics — Macroeconomics 3 Units  
(CAN ECON 2)  
Degree Appropriate, CSU, UC  
54 hours lecture.  
Prerequisite: Eligibility for ENGL 1A  
Principles of aggregate economic analysis; economic cycles including recession, unemployment, inflation and economic growth; national income accounts; money and financial institutions; monetary and fiscal policy; alternative economic viewpoint; budget deficits and public debt; international trade and finance.

BUSC 1A — Principles of Economics — Macroeconomics 3 Units  
Degree Appropriate, CSU, UC  
54 hours lecture.  
Prerequisite: Acceptance into the Honors Program  
Principles of aggregate economic analysis; economic cycles including recession, unemployment, inflation and economic growth; national income accounts; money and financial institutions; monetary and fiscal policy; alternative economic viewpoint; budget deficits and public debt; international trade and finance. An honors course designed to provide an enriched experience. Students may not receive credit for both BUSC 1A and BUSC 1AH.

BUSC 1AH — Principles of Economics — Macroeconomics — Honors 3 Units  
(CAN ECON 2)  
Degree Appropriate, CSU, UC  
54 hours lecture.  
Prerequisite: Acceptance into the Honors Program  
Principles of aggregate economic analysis; economic cycles including recession, unemployment, inflation and economic growth; national income accounts; money and financial institutions; monetary and fiscal policy; alternative economic viewpoint; budget deficits and public debt; international trade and finance.

BUS 18 — Principles of Economics — Microeconomics 3 Units  
(CAN ECON 4)  
Degree Appropriate, CSU, UC  
54 hours lecture.  
Prerequisite: BUSC 1A or BUSC 1AH  
Economic analysis with emphasis on price and distribution theory; scarcity, opportunity costs, supply, demand, elasticity; cost theory; price and output determination under various market structures; factor markets; public choice; income distribution; externalities and government regulation; comparative economic systems.

BUSC 18H — Principles of Economics — Microeconomics — Honors 3 Units  
(CAN ECON 4)  
Degree Appropriate, CSU, UC  
54 hours lecture.  
Prerequisite: BUSC 1A or BUSC 1AH  
Economic analysis with emphasis on price and distribution theory; scarcity, opportunity costs, supply, demand, elasticity; cost theory; price and output determination under various market structures; factor markets; public choice; income distribution; externalities and government regulation; comparative economic systems. An honors course designed to provide an enriched experience. Students may not receive credit for both BUSC 18 and BUSC 18H.

BUS 19 — Business Law 3 Units  
54 hours lecture.  
Degree Appropriate, CSU, UC  
Prerequisite: Acceptance into the Honors Program  
Principles of business law emphasizing legal setting of business, nature of the law and court procedure, principles of contract law, sales of goods under the Uniform Commercial Code, personal property, bailments, and secured transactions.

BUSL 18 — Business Law — Honors 3 Units  
54 hours lecture.  
Degree Appropriate, CSU, UC  
Prerequisite: Acceptance into the Honors Program  
Principles of business law emphasizing legal setting of business, nature of the law and court procedure, principles of contract law, sales of goods under the Uniform Commercial Code, personal property, bailments, and secured transactions. An honors course designed to provide an enriched experience. Students may not receive credit for both BUSL 18 and BUSL 18H.

BUSL 18H — Business Law — Honors 3 Units  
54 hours lecture.  
Degree Appropriate, CSU, UC  
Prerequisite: Acceptance into the Honors Program  
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.

BUSM 10 — Principles of Continuous Quality Improvement 3 Units  
54 hours lecture.  
Degree Appropriate  
Advisory: BUSL 18  
Comprehensive instruction in building and using Continuous Quality Improvement project teams including selection of team members and evaluation of team performance. Includes creating and evaluating problem solutions, applying tools for improvement planning, team decision making, and building an effective improvement plan.
BUSM 20 — Principles of Business 3 Units
54 hours lecture. Degree Appropriate, CSU, UC
Prerequisite: Eligibility for ENGL 68
Study 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.

BUSM 25 — Principles of E-Commerce 3 Units
54 hours lecture. Degree Appropriate
Advisory: Eligibility for ENGL 68 or BUSO 5
A hands-on course focusing on learning the principles of E-commerce through the use of the Internet. Students study the economic importance of E-commerce domestically and internationally. Includes uses of the Internet, consumer buying, retail and business purchases, Internet marketing, digital advertising, global E-commerce and business Web sites.

BUSM 50 — World Culture: A Business Perspective 3 Units
54 hours lecture. Degree Appropriate, CSU
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.

BUSM 51 — Principles of International Business 3 Units
54 hours lecture. Degree Appropriate, CSU
Advisory: Eligibility for ENGL 68 or BUSO 5
An overview of the rapidly changing international business environment, designed to provide a global perspective. Introduces global viewpoints across the full spectrum of business functions, including, but not limited to, accounting, finance, human resources, management, operations, production, purchasing, and strategic planning.

BUSM 52 — Principles of Exporting and Importing 3 Units
54 hours lecture. Degree Appropriate, CSU
Advisory: Eligibility for ENGL 68 or BUSO 5
Acquaints the student with the vocabulary, acronyms and the basic information needed for an understanding of and participating in the exporting and importing of goods and services.

BUSM 60 — Human Relations in Business 3 Units
54 hours lecture. Degree Appropriate, CSU
Behavior, personality, self-management, self-development, and elementary business psychology as an aid to furthering the student’s business advancement and lifelong learning. Class discussions focus on the student’s understanding of intrapersonal and interpersonal effectiveness with emphasis on communications, motivation, leadership and other related areas.

BUSM 61 — Business Organization and Management 3 Units
54 hours lecture. Degree Appropriate, CSU
Advisory: BUSM 20
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.

BUSM 62 — Human Resource Management 3 Units
54 hours lecture. Degree Appropriate
Direction of people including guidance, control supervisor 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.

BUSM 66 — Small Business Management 3 Units
54 hours lecture. Degree Appropriate, CSU
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.

BUSM 68 — Small Business Management 2 Units
54 hours lecture. Degree Appropriate
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.

BUSM 70 — Small Business Management 2 Units
54 hours lecture. Degree Appropriate
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.

BUSM 81 — Work Experience in Business 1 Unit
(May be taken twice for credit.) Degree Appropriate
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 business faculty. Students who repeat this course will improve skills through further instruction and practice.

BUSM 83 — Work Experience in Business 3 Units
(May be taken for Credit/No Credit only.) Degree Appropriate
Corequisite: BUSM 20 (May have been taken previously)
Provides business students with actual on-the-job experience in an approved work site which is related to classroom-based learning. A minimum of 75 paid or 60 non-paid clock hours per semester of supervised work is required for each unit of credit. 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.

BUSM 84 — Work Experience in Business 4 Units
Spring Semester Degree Appropriate
(May be taken for Credit/No Credit only.) Degree Appropriate
Corequisite: BUSM 20 (May have been taken previously)
Provides business students with actual on-the-job experience in an approved work site which is related to classroom-based learning. A minimum of 75 paid or 60 non-paid clock hours per semester of supervised work is required for each unit of credit. 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.

BUSM 85 — Special Issues in Business 2 Units
Spring Semester Degree Appropriate
(May be taken for Credit/No Credit only.) Degree Appropriate
Corequisite: BUSM 20 (May have been taken previously)
Provides business students with actual on-the-job experience in an approved work site which is related to classroom-based learning. A minimum of 75 paid or 60 non-paid clock hours per semester of supervised work is required for each unit of credit. 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.

BUSO 25 — Business Communications 3 Units
54 hours lecture.
Prerequisite: ENGL 1A
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 résumés appropriate to job seeking and application; and practicing oral skills as applied to job interviews and business reports.
### 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 writing and research investigation of claims and legal ethics.</td>
</tr>
<tr>
<td>PLGL 31A</td>
<td>Legal Analysis and Writing</td>
<td>3</td>
<td>Designed to provide the student with actual on-the-job experience in the paralegal profession which relates to student's classroom based learning. Placement is not guaranteed but assistance is provided by the paralegal faculty. A minimum of five hours per week of supervised work (minimum 75 paid clock hours or 60 non-paid clock hours per semester) is required. Students who repeat this course will improve skills through further instruction and practice.</td>
</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>PLGL 33A</td>
<td>Civil Procedure Pretrial</td>
<td>3</td>
<td>Analysis of the pretrial procedural stages to litigating a cause of action. Examine the concepts of jurisdiction, venue, parties to the action, summons, default judgments, and pleadings.</td>
</tr>
<tr>
<td>PLGL 33B</td>
<td>Civil Procedure-Trial and Post-Trial</td>
<td>3</td>
<td>Preparing for litigation. Includes discovery, preparation of law and motion documents, remedies, summary judgments, motions to dismiss, settlements, and arbitration.</td>
</tr>
<tr>
<td>PLGL 35A</td>
<td>Law Office Procedures</td>
<td>3</td>
<td>Examine procedures utilized by a paralegal in a law office. Includes knowledge of court systems, preparation and filing of legal papers and court documents, and drafting of pleadings and motions to dismiss.</td>
</tr>
<tr>
<td>PLGL 35B</td>
<td>Automated Law Office Procedures</td>
<td>3</td>
<td>Use of the personal computer for special purposes in the law office; includes the drafting of pleadings, legal research, document control, preparation of billing, law office and case load management, and tax reports.</td>
</tr>
<tr>
<td>PLGL 36</td>
<td>Paralegal Internship</td>
<td>1</td>
<td>(May be taken two times for credit.) (May be taken for Credit/No Credit only.) 75 hours lab.</td>
</tr>
<tr>
<td>PLGL 37</td>
<td>Tort Law</td>
<td>3</td>
<td>Analysis of the law of torts including intentional torts such as assault, battery, false imprisonment, defamation, privacy, trespass and nuisance, negligence, and strict liability. Examination of insurance defense issues.</td>
</tr>
<tr>
<td>PLGL 38</td>
<td>Employment and Ethical Issues in Paralegal Employment</td>
<td>2</td>
<td>Job search skills including preparation of professional résumés and cover letters. Interviewing techniques, networking, application of these skills in beginning the search for paralegal employment, and paralegal attorney ethics.</td>
</tr>
<tr>
<td>PLGL 39</td>
<td>Landlord-Tenant Law</td>
<td>3</td>
<td>Examination of the rights and liabilities of the landlord and the tenant.</td>
</tr>
<tr>
<td>PLGL 40</td>
<td>Property Law</td>
<td>3</td>
<td>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.</td>
</tr>
<tr>
<td>PLGL 41</td>
<td>Wills and Trusts</td>
<td>3</td>
<td>Legal principles of the laws of wills and trusts, organization and jurisdiction of the California Probate Courts, estate planning and estate taxes.</td>
</tr>
<tr>
<td>PLGL 42</td>
<td>Bankruptcy Law</td>
<td>3</td>
<td>Creation, scope, and administrative function of federal bankruptcy proceedings and arrangements. Includes wage earner plans and insolvency proceedings.</td>
</tr>
<tr>
<td>PLGL 43</td>
<td>Creditors’ Rights</td>
<td>3</td>
<td>Creation, perfection, and enforcement of security interests in property. Unsecured creditors and their methods of enforcing rights and obtaining judgments.</td>
</tr>
<tr>
<td>PLGL 47A</td>
<td>Litigation Procedures</td>
<td>3</td>
<td>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. Students who repeat this course will improve skills through further instruction and practice.</td>
</tr>
</tbody>
</table>
PLGL 47B — Litigation Practice 1.5 Units
(May be taken two times for credit.) Degree Appropriate
27 hours lecture.
Corequisite: PLGL 47A (May have been taken previously)
Students will present a case and evaluate the effectiveness of
textbooks. Continuous revision of opening arguments, closing
textbooks, direct examinations, and cross-examinations. Students who repeat this
course will improve skills through further instruction and practice.

PLGL 48 — Criminal Law and Procedures 3 Units
54 hours lecture. Degree Appropriate, CSU
General principles of criminal law and procedure, elements of crimes
against persons and other crimes, rights of a jury, sentencing, and
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. Degree Appropriate, CSU
Overview of evidence law in civil and criminal cases; principles of
relevance and competence of evidence; hearsay and character evidence
rules; evidentiary privileges; use and authentication of writings. Use of
evidence at trial, burdens of proof and presumptions, constitutional issues.

PLGL 50 — Comparative Law 3 Units
54 hours lecture. Degree Appropriate
A comparison of the traditions and legal systems of various nations.
Specific legal concepts and principles relating to laws 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
54 hours lecture. Degree Appropriate, CSU
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
54 hours lecture. Degree Appropriate
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
54 hours lecture. Degree Appropriate
Prerequisite: BUSR 50 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 4 Units
(May be taken two times for credit.) Degree Appropriate
300 hours lab.
Prerequisite: BUSR 50 and not possessing a permanent California real
estate license at time of enrollment.
Corequisite: Student must be enrolled in 7 units minimum, including the
work experience units.
Provides a minimum of 240 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
54 hours lecture. Degree Appropriate
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 54 — Real Estate Appraisal 3 Units
54 hours lecture. Degree Appropriate
Prerequisite: BUSR 50 or employment in the real estate field
Introductory topics in real estate appraisal. Real estate appraisal course
must be completed to take the Office of Real Estate Appraisers (OREA)
exam. Can also be used to meet the additional education requirement
for a sales or broker license.

BUSR 54SE — Standards, Ethics and Statistics for Professional Practice 1.5 Units
27 hours lecture. Degree Appropriate
Prerequisite: BUSR 54 or employment in the real estate field
Meets 27 hours towards the license and certification requirements of the
Office of Real Estate Appraisers (OREA). Emphasizes appraisal standards,
professional ethics, application of statistics to real property valuation,
and use of income and expense analysis to develop operating expense ratios.

BUSR 55 — Real Estate Economics 3 Units
54 hours lecture. Degree Appropriate
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 Department of Real Estate (DRE) for
the real estate broker license and may be used as the elective course for
the salesperson license.

BUSR 56 — Advanced Real Estate Appraisal 3 Units
Spring Semester Degree Appropriate
54 hours lecture.
Prerequisite: BUSR 54
Appraisal of residential apartment buildings, small office buildings,
shopping centers, and industrial buildings. Designed to meet 54 hours
of Office of Real Estate Appraisers (OREA) requirements for
certificate-residential/certificate-general appraisal requirements.
Meets California real estate broker license requirements.

BUSR 57 — Income Tax Aspects of Real Estate Investments 3 Units
54 hours lecture. Degree Appropriate
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 58 — Real Estate Property Management 3 Units
54 hours lecture. Degree Appropriate
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
54 hours lecture. Degree Appropriate
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
Fall Semester Degree Appropriate
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.

BUSR 66 — General Appraiser Report Writing and Case Studies 3 Units
54 hours lecture. Degree Appropriate
Prerequisite: BUSR 50 or employment in the real estate/appraisal field
Advisory: BUSR 56
Appraisal cases from all areas of real estate transactions with emphasis
on cash flow estimates, measures of cash flow, internal rate of return,
and discounted cash flow analysis for non-residential properties.
Designed to meet 54 hours toward 2008 Appraiser Qualification Board
(AWB) requirements for certified-residential/certified-general appraiser
license. Also meets Office of Real Estate Appraisers (OREA) licensing
requirements.
COURSE DESCRIPTIONS

BUS 76 — Escrow Procedures I 3 Units
54 hours lecture. Degree Appropriate
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.

BUS 77 — Escrow Procedures II 3 Units
54 hours lecture. Degree Appropriate
Prerequisite: BUS 76 and BUSA 68 or appropriate score on math
placement test
Advanced escrow procedures covering the more unusual and difficult
types of escrows and evaluating the possible solutions. Emphasis on
practical processing of real estate sales and loan transactions with some
personal property sales. Designed to assist those either directly or
indirectly connected with the escrow industry.

BUSINESS: SALES, MERCHANDISING & MARKETING

BUSS 33 — Advertising and Promotion 3 Units
54 hours lecture. Degree, Appropriate, CSU
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.

BUSS 35 — Professional Selling 3 Units
54 hours lecture. Degree Appropriate, CSU
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.

BUSS 36 — Principles of Marketing 3 Units
54 hours lecture. Degree Appropriate, CSU
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.

BUSS 50 — Retail Store Management and Merchandising 3 Units
54 hours lecture. Degree Appropriate, CSU
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.

BUSS 70 — International Marketing Concepts 3 Units
54 hours lecture. Degree Appropriate
Prerequisite: BUSS 36
Factors unique to foreign economics, cultural environments,
political/legal problems, marketing intelligence procedures, international
product policy, distribution and market channels, promotion, and
pricing decisions.

BUSS 79 — Work Experience in Marketing Management 1 Unit
(May be taken four times for credit.) Degree Appropriate
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 site which is related to classroom-based learning.
A minimum of 75 paid or 60 non-paid clock hours per semester of
supervised work is required for each unit of credit. It is recommended
that the hours per week be equally distributed throughout the
semester. Work Experience placement is not guaranteed but assistance
is provided by the business faculty. Students who repeat this course will
improve skills through further instruction and practice.

BUSS 81 — Work Experience in Marketing Management 2 Units
(May be taken four times for credit.) Degree Appropriate
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 site which is related to classroom-based learning.
A minimum of 75 paid or 60 non-paid clock hours per semester of
supervised work is required for each unit of credit. It is recommended
that the hours per week be equally distributed throughout the
semester. Work Experience placement is not guaranteed but assistance
is provided by the business faculty. Students who repeat this course will
improve skills through further instruction and practice.

BUSS 85 — Special Issues in Marketing 2 Units
(May be taken for option of letter grade or Credit/No Credit.) Degree Appropriate
Prerequisite: BUSS 33 or BUSS 35 or BUSS 36 or BUSS 50
Provides marketing majors with a forum to gain knowledge, develop
techniques, problem solve, and implement an actual business marketing
plan. Special emphasis will be placed on the particular project of the
actual business used as the class project. Students who repeat this course will
improve skills through further instruction and practice.

CHEMICAL TECHNOLOGY

CHMT 1 — Introduction to Chemical Laboratory Technology 3 Units
36 hours lecture. Degree Appropriate
54 hours lab.
Prerequisite: CHEM 10 or one year of high school chemistry (C or better)
A survey of chemical laboratory professional and ethical responsibilities,
aspects of environmental health and safety, safe handling of chemicals,
data collection, data presentation, and strategies for quality
improvement. Group projects and case studies will be used to illustrate
specific aspects of the course. May include field trips.

CHMT 5 — Elementary Principles of Chemical Processing 2 Units
36 hours lecture. Degree Appropriate, CSU
Prerequisite: CHEM 50
Fundamental theories of industrial chemical processing. Includes mass
transfer, heat transfer, real time instrument measurement, water
treatment, materials of construction and corrosion, separation by
solubility, distillation, mixing systems and chemical reactions.
<table>
<thead>
<tr>
<th>Course Code</th>
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<th>Units</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 10 + 20</td>
<td>Chemistry for Allied Health Majors</td>
<td>4 Units</td>
<td>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, and radiation technology. Completion does not give eligibility for CHEM 50.</td>
</tr>
<tr>
<td>CHEM 20</td>
<td>Introductory Organic and Biochemistry</td>
<td>5 Units</td>
<td>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>
<tr>
<td>CHEM 40</td>
<td>Introduction to General Chemistry</td>
<td>4 Units</td>
<td>72 hours lecture. Prerequisite: MATH 51 or MATH 59 or one year of high school algebra (“C” or better) Advisory: Eligibility for ENGL 1A Introduction to measurements, structure and properties of matter, writing/balancing equations, stoichiometry, properties and behavior of gases, and properties of solutions. For science/engineering majors preparing for admission into General Chemistry (CHEM 50)</td>
</tr>
<tr>
<td>CHEM 50</td>
<td>General Chemistry I</td>
<td>5 Units</td>
<td>54 hours lecture. 108 hours lab. Prerequisite: (1) One year high school chemistry with minimum “C” grade each semester; (2) Satisfactory score on Chemistry Placement Examination; (3) Grade of “C” or better in second-year algebra (may not be taken concurrently with CHEM 50.) Successful completion of CHEM 40 will satisfy the first and second prerequisites. 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>
</tr>
<tr>
<td>CHEM 50H</td>
<td>General Chemistry I – Honors</td>
<td>5 Units</td>
<td>54 hours lecture. 108 hours lab. Prerequisite: Acceptance into the Honors Program. Also, (1) one year high school chemistry with minimum “C” grade each semester; (2) satisfactory score on Chemistry Placement Test; (3) grade of “C” or better in second-year algebra (may not be taken concurrently with CHEM 50H). Successful completion of CHEM 40 will satisfy the first and second prerequisites. 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>
</tr>
<tr>
<td>CHEM 51</td>
<td>General Chemistry II</td>
<td>5 Units</td>
<td>108 hours lab. Prerequisite: CHEM 50 or CHEM 50H The application of the laws, theories and principles presented in CHEM 50 to a variety of chemical systems. Topics include kinetics, thermodynamics, base-acid 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>
</tr>
<tr>
<td>CHEM 52</td>
<td>Organic Chemistry</td>
<td>5 Units</td>
<td>108 hours lab. Prerequisite: CHEM 51 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 ensure that all content material is covered, it is recommended that students complete the entire one-year sequence at one campus prior to transfer.</td>
</tr>
<tr>
<td>CHEM 53</td>
<td>Inorganic Chemistry</td>
<td>5 Units</td>
<td>108 hours lab. Prerequisite: CHEM 51 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 ensure that all content material is covered, it is recommended that students complete the entire one-year sequence at one campus prior to transfer.</td>
</tr>
</tbody>
</table>
### Course Descriptions

- **CHEM 81 — Organic Chemistry** 5 Units  
  54 hours lecture. Degree Appropriate, CSU, UC  
  Prerequisite: CHEM 80
  Continuation of CHEM 80. Designed for chemistry, biochemistry, chemical engineering and biology majors; also for those in pre-professional programs such as medicine, veterinary medicine, dentistry, optometry and pharmacy. Structure/reactivity relationships, energetics, reactions, reaction mechanisms, synthesis, separation, characterization and spectroscopic methods. Structure, synthesis and representative classes of carbohydrates, lipids and proteins.

- **CHEM 99 — Special Projects in Chemistry** 2 Units  
  (May be taken two times for credit.) Degree Appropriate, CSU  
  36 hours lecture.
  In order to offer students the opportunity to explore their disciplines to greater depth, the various departments from time to time offer Special Projects courses. The content of each course and the methods of study vary from semester to semester, and depend on the particular project under consideration. Students must have an instructor’s authorization before enrolling in this class. Students repeating this course will make individual contracts of a more advanced nature to ensure that proficiencies are enhanced.

### Child Development

- **CHLD 1 — Child, Family and Community** 3 Units  
  54 hours lecture. Degree Appropriate, CSU, UC  
  Prerequisite: Eligibility for ENGL 68
  Child development is presented as the interaction and collaboration between children, parents, family, school and community. Studies of family systems in contemporary society as they impact children and their individual heritage, diverse culture, ability and language. Explores the value of communication, the development of child advocacy skills and the ability to use community resources to empower families and children.

- **CHLD 5 — Principles/Practices in Child Development** 3 Units  
  54 hours lecture. Degree Appropriate, CSU  
  Prerequisite: CHEM 5 or CHLD 10
  Overview of curriculum design for early childhood programs, including planning, implementation and evaluation of curriculum, and observing the interaction of play and development of the whole child. Organization of materials, curriculum areas, and resources are explored.

- **CHLD 50 — Multicultural Education: Anti-Bias Perspective** 3 Units  
  54 hours lecture. Degree Appropriate, CSU  
  Advisory: CHLD 1
  Current approaches to diversity in the early childhood setting. Students will create culturally relevant and inclusive teaching environments while fostering the goals of anti-bias curriculum. An emphasis is placed on addressing issues of bias that children and families experience on a daily basis in our society and recognizing effective and respectful handling of bias.

- **CHLD 51 — Early Literacy in Child Development** 3 Units  
  54 hours lecture. Degree Appropriate, CSU  
  Advisory: CHLD 61
  Examines the developmental continuum of literacy from birth through early childhood. Considerations of cultural and linguistic diversity are applied to the study of how children become competent in all areas of language. An appreciation of the importance of interaction and cooperation between home and school underlies the exploration of language and literacy acquisition. Issues of early literacy in public policy are reviewed. TB test/observations required.

- **CHLD 56 — Survey of Child Development Curriculum** 3 Units  
  54 hours lecture. Degree Appropriate, CSU  
  Prerequisite: CHLD 5 or CHLD 10
  Overview of curriculum design for early childhood programs, including planning, implementation and evaluation of curriculum, and observing the interaction of play and development of the whole child. Organization of materials, curriculum areas, and resources are explored.

- **CHLD 6 — Survey of Child Development Curriculum** 3 Units  
  54 hours lecture. Degree Appropriate, CSU  
  Prerequisite: CHEM 5 or CHLD 10
  Overview of curriculum design for early childhood programs, including planning, implementation and evaluation of curriculum, and observing the interaction of play and development of the whole child. Organization of materials, curriculum areas, and resources are explored.

- **CHLD 61 — Language Arts and Art Media for Young Children** 3 Units  
  54 hours lecture. Degree Appropriate, CSU  
  Language and literacy development of young children (0 to 6 years) is explored through developmentally appropriate activities, language study, games and play. Describes the role of creative art in the curriculum in relationship to the child’s development and creativity. Emphasizes ways to develop an inclusive culturally and linguistically appropriate learning environment which encourages the child’s use of senses and builds an awareness of aesthetic materials.

- **CHLD 62 — Music and Motor Development for Young Children** 3 Units  
  54 hours lecture. Degree Appropriate, CSU  
  Exploration of the role of music and movement in a child’s development. Emphasizes students’ development in practical activities including making music, movement, singing and musical instruments.

- **CHLD 63 — Creative Science and Math for Young Children** 3 Units  
  54 hours lecture. Degree Appropriate, CSU  
  Advisory: Eligibility for ENGL 68
  Exploration of children’s thinking processes and problem solving abilities as they become aware of the physical world. Discussion, planning, and creating basic science and math experiences. Emphasizes creative aspects of math and science.

- **CHLD 64 — Health, Safety and Nutrition of Young Children** 3 Units  
  54 hours lecture. Degree Appropriate, CSU  
  Examine the relationship between a child’s health status, safe learning environments, and proper nutrition. Emphasizes the adult role in preventive health care, legal and ethical reporting of abuse, assisting families to access community services while supporting family practices from diverse populations. Includes universal health precautions, evaluates center/agency policies with licensing requirements, and food program service with guidelines for food handling.

- **CHLD 66 — Early Childhood Development Observation** 2 Units  
  36 hours lecture. Degree Appropriate, CSU  
  Prerequisite: CHLD 5 and CHLD 10 or CHLD 10H
  Corequisite: CHLD 66L (May have been taken previously)
  Emphasizes the importance of observation of children’s behavior and its significance in understanding child development principles. Focus will be on the interaction of the preschool child with the environment and with significant people.

- **CHLD 66L — Early Childhood Development Observation Laboratory** 1 Unit  
  54 hours lab. Degree Appropriate, CSU  
  Corequisite: CHLD 66
  Provides the student with an understanding of child development through observations in the laboratory school. The holistic approach to child study is emphasized. Students synthesize information which they have recorded and relate it to different areas of the preschool child’s growth and development.
<table>
<thead>
<tr>
<th>COURSE DESCRIPTIONS</th>
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<tbody>
<tr>
<td><strong>CHLD 67</strong> — Early Childhood Development Participation 2 Units</td>
</tr>
<tr>
<td>36 hours lecture. Degree Appropriate, CSU</td>
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<tr>
<td>Prerequisite: CHLD 6 and CHLD 66</td>
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<tr>
<td>Corequisite: CHLD 67L</td>
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<tr>
<td>Application of knowledge of child development principles in the preschool children's classroom setting and recognition of skills necessary for the teacher of young children. Evaluation of participation experiences.</td>
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</tbody>
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| **CHLD 67L** — Early Childhood Development Participation 1 Unit Laboratory |
| 63 hours lab. Degree Appropriate, CSU |
| Corequisite: CHLD 67 |
| Teaching experiences in the preschool children's classroom related to creating environment, managing program, preparing materials, planning and carrying out activities for individual children and groups of children. |

| **CHLD 68** — Children With Special Needs 3 Units |
| 54 hours lecture. Degree Appropriate, CSU |
| 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 adaptations, accommodations and teaching techniques involved in the inclusive classroom. Required observations in community agencies. |

| **CHLD 69** — Early Childhood Development 2 Units |
| 36 hours lecture. Degree Appropriate, CSU |
| Prerequisite: CHLD 67, CHLD 67L |
| Corequisite: CHLD 91 |
| Selected topics pertinent to problems of students placed in community sites. Topics include philosophical orientation, curriculum, parent involvement, staff relations, professionalism and professional growth, and will involve study, discussion and research. |

| **CHLD 71A** — Administration of Child Development Programs 3 Units |
| 54 hours lecture. Degree Appropriate, CSU |
| 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 |
| 54 hours lecture. Degree Appropriate |
| Prerequisite: CHLD 71A |
| Strategic planning for early childhood development 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 |
| 54 hours lecture. Degree Appropriate |
| 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 |
| 54 hours lecture. Degree Appropriate, CSU |
| 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 |
| 54 hours lecture. Degree Appropriate |
| 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 |
| 36 hours lecture. Degree Appropriate |
| 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 two times for credit.) Degree Appropriate |
| (May be taken for option of letter grade or Credit/No Credit.) |
| 18 hours lecture. |

| **CHLD 82** — Advocacy in Child Development 1 Unit |
| 18 hours lecture. Degree Appropriate |
| (May be taken two times for credit.) Degree Appropriate |
| (May be taken for option of letter grade or Credit/No Credit.) |
| 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 83** — Current Issues in Child Development 1 Unit |
| 18 hours lecture. Degree Appropriate |
| (May be taken four times for credit.) Degree Appropriate |
| (May be taken for option of letter grade or Credit/No Credit.) |
| 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. |

| **CCHLD 84** — Guidance and Discipline in Child Development 1 Unit Settings |
| 18 hours lecture. Degree Appropriate |
| 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 |
| 54 hours lecture. Degree Appropriate |
| Prerequisite: CHLD 64 and CHLD 73 |
| Advisory: CHLD 5 |
| Principles and methods of working with infants and toddlers who are disabled or at-risk in the early childhood setting. Emphasis is placed on issues affecting normal development prevention, intervention, referrals and transition to school. Course will prepare teachers of young children for appropriate planning in these settings. |

| **CHLD 91** — Early Childhood Development Field Work 1 Unit |
| 75 hours lab. Degree Appropriate |
| (May be taken for Credit/No Credit only.) Degree Appropriate |
| A teacher-supervised work experience course which permits students to apply early childhood development principles in community preschools. CHLD 69 Seminar will supplement student's progress. A minimum of 75 paid or 60 non-paid clock hours per semester of supervised work is required for each unit of credit. It is recommended that the hours per week be equally distributed throughout the semester. |
**An independent study laboratory course for students who wish to improve their skills in Mandarin Chinese. May supplement any other Chinese course. Requires 24 hours in the language laboratory to receive credit. Students who repeat this course will improve their skills in Mandarin Chinese. May supplement any other Chinese course. Requires 24 hours in the language laboratory to receive credit.**

**COMPUTER & NETWORKING TECHNOLOGY**

**CNET 50 — PC Servicing**
4 Units
54 hours lecture. Degree Appropriate
54 hours lab.
Advisory: CNET 50 taken prior or concurrently
PC and peripheral servicing techniques, preventative maintenance, hardware configurations, software configurations, software diagnostics, and the use of test equipment.

**CNET 52 — PC Operating Systems**
4 Units
54 hours lecture. Degree Appropriate
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.

**CNET 54 — PC Troubleshooting**
4 Units
54 hours lecture. Degree Appropriate
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 56 — Computer Networks**
4 Units
54 hours lecture. Degree Appropriate
54 hours lab.
Advisory: CNET 54 taken prior
Standards, terminology, design, implementation and troubleshooting techniques as they relate to both Local and Wide Area Networks. Emphasis on hardware and software components, network architecture and data transmission methods. Of special interest to computer and network technicians and those seeking certification in A+, Network+, or other MSCE certifications.

**CNET 60 — A+ Certification Preparation**
3 Units
(May be taken two times for credit.) Degree Appropriate
54 hours lecture.
Advisory: CNET 54
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.

**CNET 62 — Network+ Certification Preparation**
3 Units
(May be taken two times for credit.) Degree Appropriate
54 hours lecture.
Advisory: CNET 56
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.

**CNET 64 — Server+ Certification Preparation**
3 Units
(May be taken two times for credit.) Degree Appropriate
36 hours lecture.
54 hours lab.
Advisory: CNET 56 taken prior
Prepares the computer/network service technician for the Comp TIA Server+ certification examination.

**CNET 66 — Security+ Certification Preparation**
3 Units
(May be taken two times for credit.) Degree Appropriate
36 hours lecture.
54 hours lab.
Advisory: CNET 56 taken prior
Prepares the computer/network service technician for the Comp TIA 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.

**COMPUTER APPLICATIONS**

**COMP 1 — Computer Keyboarding**
4 Units
54 hours lecture. Degree Appropriate, CSU
54 hours lab.
Develops 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.

**COMP 1A — Computer Keyboarding**
2 Units
(May be taken for option of letter grade or Credit/No Credit.) Degree Appropriate, CSU
27 hours lecture.
27 hours lab.
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.
COMP 2 — Intermediate Computer Keyboarding 4 Units
54 hours lecture. Degree Appropriate
54 hours lab.
Prerequisite: COMP 1 or COMP 10 or BUSO 1 or BUSO 18, or one year of high school 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. Using word processing software, extensive instruction given for formatting of letters, memos, reports, tables and other related business documents.

COMP 10 — Operating the Macintosh Computer 1.5 Units
Degree Appropriate, CSU
(May be taken for option of letter grade or Credit/No Credit.)
27 hours lecture.
27 hours lab.
Advisory: COMP 10 or CISB 13
Practical hands-on instruction using the Internet for research in a business environment. Master Internet-specific research techniques, discover timesaving tips for locating and managing information, and use the entire Internet, newsgroups, FTP (File Transfer Protocol) and mailing lists.

COMP 11 — Internet Research for Business 2 Units
Degree Appropriate, CSU
(May be taken for option of letter grade or Credit/No Credit.)
27 hours lecture.
Advisory: COMP 10 or CISB 13
Practical hands-on instruction using the Internet for research in a business environment. Master Internet-specific research techniques, discover timesaving tips for locating and managing information, and use the entire Internet, newsgroups, FTP (File Transfer Protocol) and mailing lists.

COMP 12 — Office Computer Applications 4 Units
Degree Appropriate, CSU, UC
(May be taken for option of letter grade or Credit/No Credit.)
54 hours lecture.
54 hours lab.
In-depth study of computer applications utilized in the office environment. Includes extensive hands-on instruction in word processing, spreadsheet, data management, and business graphics. Intended for the student who needs to upgrade or acquire office computer skills.

COMP 13 — Using Web Page Software 4 Units
Degree Appropriate, CSU
(May be taken for option of letter grade or Credit/No Credit.)
54 hours lecture.
54 hours lab.
Advisory: COMP 10 or COMP 12 or CISB 13 or CISB 15
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.

COMP 18 — Data Entry 3 Units
(May be taken two times for credit.) Degree Appropriate
54 hours lecture.
Advisory: Ability to type 25 wpm with test verification at first class meeting
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. Students who repeat this course will improve skills through further instruction and practice.

COMP 20 — Word for the Business Professional 4 Units
(May be taken two times for credit.) Degree Appropriate
(May be taken for option of letter grade or Credit/No Credit.)
54 hours lecture.
54 hours lab.
Advisory: COMP 10 or CISB 13 and ability to type 25 wpm with test verification at first class meeting
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. Students who repeat this course will improve skills through further instruction and practice.

COMP 50 — Desktop Presentations Using PowerPoint 4 Units
(May be taken two times for credit.) Degree Appropriate, CSU
54 hours lecture.
54 hours lab.
Advisory: COMP 10 or COMP 12 or CISB 13 or CISB 15
Using PowerPoint to plan, design, and produce effective presentations. Includes creating charts, diagrams, and storyboards; developing appropriate text content; adding sound, animation, and movies. Students who repeat this course will improve skills through further instruction and practice.

COMP 60 — Desktop Publishing with InDesign or PageMaker 4 Units
(May be taken three times for credit.) Degree Appropriate, CSU
(May be taken for option of letter grade or Credit/No Credit.)
54 hours lecture.
54 hours lab.
Advisory: COMP 10 or COMP 12 or CISB 13 or CISB 15
Using InDesign or PageMaker desktop publishing software to integrate text and graphics for designing, editing and producing high-quality business publications.

COMP 62 — Desktop Publishing with QuarkXpress 4 Units
(May be taken three times for credit.) Degree Appropriate
(May be taken for option of letter grade or Credit/No Credit.)
54 hours lecture.
54 hours lab.
Advisory: COMP 10 or COMP 12 or CISB 13 or CISB 15 or equivalent experience
Using QuarkXpress desktop publishing software on a microcomputer to integrate text and graphics for designing, editing, and producing high-quality business publications. Students who repeat this course will improve skills through further instruction and practice.

COMP 63 — Adobe Illustrator for Desktop Publishers 4 Units
(May be taken three times for credit.) Degree Appropriate
(May be taken for option of letter grade or Credit/No Credit.)
54 hours lecture.
54 hours lab.
Advisory: COMP 10 or COMP 12 or CISB 13 or CISB 15 or equivalent experience
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. Students who repeat this course will improve skills through further instruction and practice.

COMP 64 — Desktop Publishing Seminar 2.5 Units
(May be taken three times for credit.) Degree Appropriate
(May be taken for Credit/No Credit only.)
36 hours lecture.
27 hours lab.
Prerequisite: COMP 60 or COMP 62 and COMP 65
Advisory: COMP 63
Students will produce “real life” publishing products emphasizing creative design and effective production. Students will gain practical experience through working with clients and working in teams. Students who repeat this course will improve skills and create additional portfolio pieces.

COMP 65 — Modifying Images for Desktop Publishing 4 Units
(May be taken three times for credit.) Degree Appropriate
(May be taken for option of letter grade or Credit/No Credit.)
54 hours lecture.
54 hours lab.
Advisory: COMP 10 or COMP 12 or CISB 13 or CISB 15 or equivalent experience
Using Adobe PhotoShop on a microcomputer as applied from the office perspective. Students who repeat this course will improve skills through further instruction and practice.

COMP 66 — Transcription Techniques 3 Units
Degree Appropriate
(May be taken for option of letter grade or Credit/No Credit.)
54 hours lecture.
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.
Course Descriptions

**COMP 150 — Basic PowerPoint** 1 Unit
(May be taken for Credit/No Credit only.) Degree Appropriate
36 hours lecture.
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.

**COMPUTER GRAPHICS**

**GRAP 1 — Computer Graphics Lab** 1 Unit
(May be taken two times for credit.) Degree Appropriate
(May be taken for option of letter grade or Credit/No Credit.)
36 hours lecture.
54 hours lab.
Prerequisite: 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.

**GRAP 10 — Photo Editing with Photoshop** 3 Units
(May be taken two times for credit.) Degree Appropriate
(May be taken for option of letter grade or Credit/No Credit.)
36 hours lecture.
54 hours lab.
Prerequisite: COMP 10 or equivalent computer experience
Basic techniques to adjust and modify photos using Photoshop software tools. Includes digital color theory and photo quality standards; practice photocomposition, resolution and scaling, masking, layer editing and effects, filters, color correction and file formats; outputting for editing, restoring, and retouching. Students who repeat this course will improve skills through further instruction and practice.

**GRAP 12 — Advanced Photo Editing with Photoshop** 3 Units
(May be taken two times for credit.) Degree Appropriate
(May be taken for option of letter grade or Credit/No Credit.)
36 hours lecture.
54 hours lab.
Prerequisite: COMP 10 or equivalent computer experience
Advanced training in Photoshop editing, color, exposure, sharpening, and contrast enhancement, layer and object masking, vector tools, image compositing, and the use of blended modes; design of realistic and imaginary photo illustrations using 8- and 16-bit high resolution digital images. Students who repeat this course will improve skills through further instruction and practice.

**GRAP 14 — Digital Color Management** 3 Units
(May be taken two times for credit.) Degree Appropriate
(May be taken for option of letter grade or Credit/No Credit.)
36 hours lecture.
54 hours lab.
Prerequisite: COMP 10 or equivalent computer experience
Principles of digital color management, color spaces, color mode conversion, color gamut, and color accuracy. Students who repeat this course will improve skills through further instruction and practice.

**GRAP 16 — Digital Image Design with Illustrator & Freehand** 3 Units
(May be taken two times for credit.) Degree Appropriate
(May be taken for option of letter grade or Credit/No Credit.)
36 hours lecture.
54 hours lab.
Prerequisite: COMP 10 or equivalent computer experience
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. Students who repeat this course will improve skills through further instruction and practice.

**GRAP 18 — Advanced Image Design — 3D Modeling Techniques** 3 Units
(May be taken two times for credit.) Degree Appropriate
(May be taken for option of letter grade or Credit/No Credit.)
36 hours lecture.
54 hours lab.
Prerequisite: Comp 16
Corequisite: GRAP 1 (May have been taken previously)
Advanced digital image drawing emphasizing creation of photorealistic 3D models and environments. Principles of perspective, coordinate space, photographic lighting, object animation, photo texture mapping, and common techniques for rendering still or animated QuickTime image movies for digital compositing and post-production. Students who repeat this course will improve skills through further instruction and practice.

**GRAP 20 — Applying Photos and Images in Multimedia** 3 Units
(May be taken two times for credit.) Degree Appropriate
(May be taken for option of letter grade or Credit/No Credit.)
36 hours lecture.
54 hours lab.
Prerequisite: COMP 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 and hardware. Students who repeat this course will improve skills through further instruction and practice.

**GRAP 24 — Work Experience in Computer Graphics** 2 Units
(May be taken four times for credit.) Degree Appropriate
(May be taken for option of letter grade or Credit/No Credit.)
150 hours lab.
Prerequisite: Compliance with Work Experience regulations as designated in the College Catalog
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.

**GRAP 28 — Digital Portfolio** 3 Units
Degree Appropriate
(May be taken for option of letter grade or Credit/No Credit.)
36 hours lecture.
54 hours lab.
Prerequisite: GRAP 12 and GRAP 20
Preparation of a personal computer graphics portfolio containing key samples of work for presentation or career evaluation. The portfolio displays the learner's skills mastery, knowledge, and capacities for communicating, synthesizing, and problem solving.

**GRAP 48 — Introduction to Digital Design Systems** 1 Unit
Degree Appropriate
(May be taken for option of letter grade or Credit/No Credit.)
18 hours lecture.
Prerequisite: Eligibility for ENGL 68
Advisory: Freshmen and sophomores are strongly encouraged to take an introductory course before attempting this course.
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.

**GRAP 99 — Special Projects in Computer Graphics** 2 Units
Degree Appropriate, CSU
(May be taken for Credit/No Credit only.)
36 hours lecture.
In order to offer selected students recognition for their academic interests and ability and the opportunity to explore their disciplines to greater depth, the various departments from time to time offer Special Projects courses. The content of each course and the methods of study vary from semester to semester and depend on the particular project under consideration. Students must have an instructor's authorization before enrolling in this course. Students repeating this course will make individual contracts of a more advanced nature with the instructor to assure that proficiencies are enhanced.
COMPUTER INFORMATION SYSTEMS: AUXILIARY

CISX 94 — Laboratory Studies in Computer Information Systems 1 Unit
(May be taken two times for credit.) Degree Appropriate, CSU
(May be taken for Credit/No Credit only.)
54 hours lab.
Prerequisite: Laboratory course in the same subject field and program specialization and depending on space availability
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.

CISX 95 — Laboratory Studies in Computer Information Systems 2 Units
(May be taken two times for credit.) Degree Appropriate, CSU
(May be taken for Credit/No Credit only.)
108 hours lab.
Prerequisite: Laboratory course in the same subject field and program specialization and depending on space availability
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.

CISX 96 — Laboratory Studies in Computer Information Systems 3 Units
(May be taken two times for credit.) Degree Appropriate, CSU
(May be taken for Credit/No Credit only.)
162 hours lab.
Prerequisite: Laboratory course in the same subject field and program specialization and depending on space availability
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.

CISX 97 — Work Experience in Computer Information Systems 1 Unit
(May be taken four times for credit.) Degree Appropriate
(May be taken for Credit/No Credit only.)
75 hours lab.
Prerequisite: Compliance with Work Experience regulations as designated in the College Catalog
Advisory: CISD 14, CISP 14, CISM 31
Provides CIS students with actual on-the-job experience in an approved work site which is related to classroom-based learning. A minimum of 75 paid clock hours or 60 non-paid clock hours per semester is required for each one unit of credit. Work experience placement is not guaranteed but assistance is provided. Students who repeat this course will improve skills through further instruction and practice.

COMPUTER INFORMATION SYSTEMS: BEGINNING

CIS 11 — Computer Information Systems 3.5 Units
(CAN BUS 6) Degree Appropriate, CSU, UC
54 hours lecture.
27 hours lab.
Provide an understanding of computer information systems: computer hardware, software, data communications, computer ethics, computer security, systems analysis and design, Internet, problem solving and programming using multiple computer platforms.

CIS 13 — Microsoft Windows 2 Units
27 hours lecture. Degree Appropriate, CSU
27 hours lab.

CIS 15 — Microcomputer Applications 4 Units
54 hours lecture. Degree Appropriate, CSU, UC
54 hours lab.
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.

CIS 21 — Microsoft Excel 4 Units
54 hours lecture. Degree Appropriate
54 hours lab.
Spreadsheet concepts using Microsoft Excel including formatting formula and function use, charting, linking worksheets, pivot tables, macros, and VBA code basics.

COMPUTER INFORMATION SYSTEMS: DATABASE

CISD 11 — Database Management – Microcomputers 4 Units
54 hours lecture. Degree Appropriate, CSU
54 hours lab.
Advisory: COMP 12 or CIS 11 and CIS 15
Design, creation and management of relational databases using Microsoft's Access or similar database management systems. Basic database design, creation of tables, queries, forms, reports, data access pages, and macros. Creation of Custom Graphical User Interface using Switchboard Manager and VBC code. Extensive hands-on experience on a Windows-based PC.

CISD 14 — Advanced Database Management – Microcomputers 4 Units
54 hours lecture. Degree Appropriate
54 hours lab.
Advisory: CISD 11 and CISP 11
Advanced Access programming techniques using Visual Basic language; event-driven programming; access object model, DAO object model, ADO object model; VB structures, arrays, error handling, multi-user applications, transaction processing, client-server, security issues. Extensive hands-on experience on a windows-based PC.

CISD 21 — SQL Server 4 Units
54 hours lecture. Degree Appropriate
54 hours lab.
Advisory: CIS 11 or CISP 15
Provides comprehensive instruction in structured query language (SQL) and transact-SQL for Microsoft SQL Server users. Students design a database, create database objects, view and update data, define cursors, develop program units, manage transactions, and handle database security.

CISD 31 — Database Management 4 Units
54 hours lecture. Degree Appropriate
54 hours lab.
Advisory: CISD 11
Oracle database functions, concepts, and terms. PL/SQL will be used to code, test and implement stored procedures, functions, triggers, and packages. Relational database projects will be built using PL/SQL.

CISD 32 — Oracle Forms and Reports 4 Units
54 hours lecture. Degree Appropriate
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 33 — Oracle Database Architecture and Administration 4 Units
54 hours lecture. Degree Appropriate
54 hours lab.
Advisory: CISD 31 highly recommended
Provides the Oracle data-base administrator (DBA) a firm foundation in basic administrative tasks and the necessary knowledge and skills to set up, maintain, organize and troubleshoot an Oracle database. Presents an in-depth coverage on Oracle internal structures, the database administrative tools, user management, management of database logical and physical layouts.
COURSE DESCRIPTIONS

CISD 34 — High Performance Oracle SQL Tuning 2 Units
27 hours lecture. Degree Appropriate
27 hours lab.
Advisory: CISD 33
Provides Oracle Database Administration and Oracle Application
Developers with the knowledge and hands-on skills necessary to tune
the performance of Oracle applications. Concepts and hands-on
programming skills necessary to code efficient SQL statements, use
Oracle Optimizers, resources, and path tracing.

CISD 40 — Database Design 2 Units
27 hours lecture. Degree Appropriate
27 hours lab.
Advisory: CISD 11
Database design principles. Understanding database needs and functions,
creating data models, E-R and UML diagrams, using normalization rules
and principles to create properly-designed databases and learning basic
database administrator objectives and tasks.

CISD 50 — Web Based Applications With PL/SQL 4 Units
54 hours lecture. Degree Appropriate, CSU
54 hours lab.
Advisory: CISD 31
Development of web-based applications with PL/SQL. Includes general
understanding of Web DB, incorporating Oracle database into PL/SQL
Web applications and building objects and components.

CISM 11 — Systems Analysis and Design 3.5 Units
54 hours lecture. Degree Appropriate, CSU, UC
27 hours lab.
Advisory: CISB 15 or COMP 12 and CISB 11
Develops basic understanding of information systems, general system
solutions and the discipline of systems analysis in relation to the informa-
sion system life cycle. Develops skills in applying the tools, techniques, and
concepts of systems analysis to information systems development.

CISM 14 — Computer Information Systems Seminar 4 Units
Spring Semester Degree Appropriate
(May be taken two times for credit.)
54 hours lecture.
54 hours lab.
Advisory: CISM 11 and at least one of the following: CISD 14, CISP 14,
CISP 34
Guided experience in the performance, management and documentation of a computer-based system project. The student, independently or as a
team member, will initiate and complete a semester project. Includes defining the problem, designing the new system, developing a working
system and preparing the system documentation. The project must be completed in a programming language for which an advanced course has
been completed. Students who repeat this course will improve skills
through further instruction and practice.

CISM 21 — Client/Server Architecture 4 Units
54 hours lecture. Degree Appropriate
54 hours lab.
Advisory: CISD 14 or CISP 14 or CISP 41
Architectural framework and components of a client/server
environment. Includes standards groups, data access and distribution,
implementation issues; selection criteria for client hardware and
software, server hardware and software, relational databases,
applications development tools, and distributed systems management;
and application prototyping.

CISM 31 — AS/400 System Administration 4 Units
54 hours lecture. Degree Appropriate
54 hours lab.
Advisory: CISM 11 or computer work experience
Administrating the IBM AS/400 Computer System using OS/400
(operating system/400) services: OS/400 user interface, CL command
interface, navigating system hardware features and licensed programs,
managing devices, system IPL, system security, objects and object
management, libraries and library lists, AS/400 job scheduling and job
descriptions, work management objects, objects, save and restore
functions, AS/400 utilities, SDA menu creation, DDS-described physical,
logical and display files, and basic interactive and batch CL programs.

CISM 34 — AS/400 Advanced System Administration 4 Units
54 hours lecture. Degree Appropriate
54 hours lab.
Advisory: CISM 31
The AS/400 computer system: Batch and interactive CL system utility
programs, including a standard error handling routine, CL parameter
passing, data areas, message subfiles, and *OUTFILE processing. Save
and Restore requirements, backup strategies, the AS/400 System
Software upgrade procedures, tape device maintenance, work
management objects, work management scenarios, disk analysis, and
job scheduling will also be discussed and incorporated into student-
developed CL based solutions. Course includes extensive hands-on
experience using an AS/400.

CISM 14 — Advanced Telecommunications 4 Units
54 hours lecture. Degree Appropriate
54 hours lab.
Advisory: CISM 11, CISM 11, CISM 41
Concepts of advanced telecommunication and network analysis. Topics
including: review of networking and telecommunications protocols;
advanced TCP/IP subnet and OSI Model applications; use of protocol
analysis tool to capture dataframe and troubleshoot advanced network
problems through the decode analysis of the captured dataframe;
design and analysis of LAN, WAN, and wireless networks in various
environments and appraisal of network security, vulnerability and
intrusion detection.

CISM 21 — Windows Operating System 4 Units
54 hours lecture. Degree Appropriate, CSU
54 hours lab.
Advisory: CISB 11 or CISB 15 OR COMP 12
Employing a Windows operating system to manage disks, files and
applications. Creating and editing documents with Wordpad and Paint
applications, analyze and debug Windows operating environment problems,
secure a Windows environment, conduct research on the Internet.

CISM 24 — Window Server Network & Security Administration 4 Units
54 hours lecture. Degree Appropriate, CSU
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.

CISM 31 — Linux Operating System 4 Units
54 hours lecture. Degree Appropriate, CSU
54 hours lab.
Advisory: CISB 15 or CISB 11 or CISN 11 OR CISN 21
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.

CISM 34 — LINUX Networking and Security 4 Units
54 hours lecture. Degree Appropriate, CSU
54 hours lab.
Advisory: CISM 11
Network installation and management using Linux operating system
and its security components. In-depth study of concepts TCP/IP, IP
addressing, network protocols and servers, gateways, routers, bridges
and applications. Creating Linux intranets and connecting to Internet.
### COMPUTE R INFORMATION SYSTEMS: PROGRAMMING

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CISP 11</td>
<td>Programming in Visual Basic</td>
<td>4</td>
<td>Advanced computer programming concepts using Visual Basic as the programming language. Designing, coding, testing, and implementing event-driven programs; validating input data; trapping errors; designing, displaying, searching, and updating database tables; creating record sets using SQL, producing business graphics; using OLE objects and DLLs; distributing applications.</td>
</tr>
<tr>
<td>CISP 14</td>
<td>Advanced Basic Programming</td>
<td>4</td>
<td>Plans, develop and debug C# applications using Windows Forms and Web Forms. Course covers loops, if statements, switch blocks, database connections, multiple forms, object-oriented programming concepts. Course taught in hands-on environment and requires projects implementing each concept.</td>
</tr>
<tr>
<td>CISP 21</td>
<td>Programming in Java</td>
<td>4</td>
<td>Object-oriented programming using Java as the programming language. Design and develop object-oriented programs and Web-based applets; document-ation and debugging techniques; user-interface, objects, properties, methods, and events; elementary control structures; streams and serialization. Provides students with hands-on experience.</td>
</tr>
<tr>
<td>CISP 31</td>
<td>Programming in C++</td>
<td>4</td>
<td>Object-oriented programming using C++ as the programming language. Object oriented design, documentation, and debugging techniques. Elementary control structures, classes, overload operators and functions, single and multiple inheritance.</td>
</tr>
<tr>
<td>CISP 41</td>
<td>Programming in C#</td>
<td>4</td>
<td>May be taken for option of letter grade or Credit/No Credit. (May be taken for option of letter grade or Credit/No Credit.)</td>
</tr>
<tr>
<td>CISP 44</td>
<td>Advanced Programming in C#</td>
<td>4</td>
<td>Advanced programming concepts using C#. Designing, coding, testing and implementing object-oriented multi-tier applications; displaying, searching, and updating SQL/Client databases using Data Readers and Data Adapters with both Windows Forms and Web Forms; creating user controls, Web Services, and container classes classes; creating HTML help files, deploying applications, and developing mobile applications.</td>
</tr>
</tbody>
</table>

### COMPUTER INFORMATION SYSTEMS: SECURITY

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Description</th>
</tr>
</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 computer users to protect user accounts and computer systems from attacks. Hands-on projects illustrate security software and hardware configuration.</td>
</tr>
<tr>
<td>CISS 15</td>
<td>Operating Systems Security</td>
<td>4</td>
<td>Advanced aspects of operating systems security from how attackers operate to how viruses strike. Covers strengthening operating systems and repelling attacks. Fundamental knowledge of a full range of security concepts and techniques and application to different operating systems (Windows, Unix, etc.).</td>
</tr>
<tr>
<td>CISS 21</td>
<td>Network Vulnerabilities and Countermeasures</td>
<td>4</td>
<td>Concepts of network vulnerabilities from a hacker's perspective. Addresses the latest cutting edge attacks and common attacks still prevalent though hands-on lab assignments; explores legal issues associated with computer network attacks; provides students knowledge to design, build and operate network systems to prevent, detect, and respond to attacks. Communication protocols, mediums, security classes, well-known ports and services, discovery and scanning techniques, port, socket and service vulnerability penetrations are some topics addressed.</td>
</tr>
</tbody>
</table>
COURSE DESCRIPTIONS

CISW 11 — Introduction to Internet Technologies 4 Units
54 hours lecture. Degree Appropriate, CSU
54 hours lab.
Advisory: CISB 11 or CISB 13 or CISB 15
Overview of Internet concepts and how to use Internet technologies securely, including: e-mail, World Wide Web, chat, instant messaging, voice-over IP, searching the Internet, file-sharing, streaming media, creating Web pages and Web sites, blogging, podcasting, wikis, RSS, social networking, multiplayer gaming, and e-commerce.

CISW 21 — Secure Client Side Web Programming 4 Units
54 hours lecture. Degree Appropriate
54 hours lab.
Advisory: CISW 15 or CISW 11
Acquire secure client side programming skills for designing user interfaces, processing user input, and accessing Web servers and databases. Use secure coding techniques with Web programming, scripting and markup languages like XHTML, Dynamic HTML, CSS, XML, JavaScript and others.

CISW 24 — Secure Server Side Web Programming 4 Units
54 hours lecture. Degree Appropriate
54 hours lab.
Advisory: CISW 21
Advanced Web programming such as creating Web user interfaces like interactive CGI (Common Gateway Interface), programming databases, managing files, extracting information, report formatting, and accessing Web servers by using a Web scripting or programming language like PERL.

CISW 31 — Secure Web Servers 4 Units
54 hours lecture. Degree Appropriate
54 hours lab.
Advisory: CISW 21 or CISW 27
Plan, install, and manage secure Web servers like Apache or IIS using server side programming language like PHP to access, manage and secure databases. Course topics include Web server security using firewalls, authentication, and SSL, database installation and configuration, running and securing practical e-commerce sites.

CISW 41 — XML Secure Programming 3 Units
54 hours lecture. Degree Appropriate
Advisory: CISW 27
Principles, components and benefits of the Extensible Markup Language (XML), including advanced concepts of XPointers, XLink, and XSLT. Apply XML secure programming using DOM and SAX and standards such as Canonicalization, Signatures and Encryption.

CISW 49 — Service Oriented Architecture Concepts & Practice 3 Units
54 hours lecture. Degree Appropriate
Prerequisite: CISW 41
Concepts and design principles of Service Oriented Architecture (SOA) and best practices on how to integrate SOA; XML technologies like DTD, XSD, XLT, XQuery and XPath; and Web Services technologies like WSDL, SOAP, and UDDI. Best practices on integrating SML and Web Services into applications and databases and enterprise level systems.

CSCI 110 — Fundamentals of Computer Science 3.5 Units
54 hours lecture. Degree Appropriate, CSU, UC
27 hours lab.
Prerequisite: MATH 71 or MATH 71B or MATH 72 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.)

CSCI 140 — C++ Language and Object Development 4 Units
(CAN CSCI118) Degree Appropriate, CSU, UC
54 hours lecture.
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.

CSCI 145 — Java Language and Object Oriented Programming 4 Units
54 hours lecture. Degree Appropriate, CSU, UC
54 hours lab.
Prerequisite: Completion of 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.

CSCI 150 — Assembly Language/Machine Architecture 3 Units
CSCI 150 + 150L = CAN CSCI 10
Degree Appropriate, CSU, UC
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.

CSCI 150L — Assembly Language Laboratory 1 Unit
(CAN CSCI 10)
(May be taken for Credit/No Credit only.)
54 hours lab.
Corequisite: CSCI 150 and scientific algorithms and data structures in C++ or Java is strongly recommended
Advisory: CSCI 140; Language experience programming general and scientific algorithms and data structures in C++ or Java is strongly recommended
Complements the lecture material in CSCI 150. Development/debugging of assembly language programs.

CSCI 170 — Introduction to Unix Operating System 3.5 Units
Fall Semester Degree Appropriate, CSU, UC
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.
### Course Descriptions

#### CORRECTIONAL SCIENCES

<table>
<thead>
<tr>
<th>COURSE</th>
<th>Title</th>
<th>Units</th>
<th>Prerequisites</th>
</tr>
</thead>
<tbody>
<tr>
<td>CORS 10</td>
<td>Introduction to Correctional Sciences</td>
<td>3</td>
<td>Spring Semester                Degree Appropriate, 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.</td>
</tr>
<tr>
<td>CORS 15</td>
<td>Control and Supervision of the Offender</td>
<td>3</td>
<td>Fall Semester                Degree Appropriate 54 hours lecture. Examines methods of controlling and supervising inmates. Emphasizes California's methods in rapidly-expanding institutions.</td>
</tr>
<tr>
<td>CORS 20</td>
<td>Correctional Law</td>
<td>3</td>
<td>Spring Semester                Degree Appropriate 54 hours lecture. Legal and due process rights for inmates. Inmate rights vs. needs of society. State, federal, and appellate court decisions.</td>
</tr>
<tr>
<td>CORS 25</td>
<td>Probation and Parole</td>
<td>3</td>
<td>Fall Semester                Degree Appropriate 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.</td>
</tr>
<tr>
<td>CORS 30</td>
<td>Ethnic Relations in Corrections</td>
<td>3</td>
<td>Spring Semester                Degree Appropriate 54 hours lecture. A historical survey of minority roles, problems and relationships in America. Stresses cultural and racial differences and interpersonal relationships of correctional staff and clients.</td>
</tr>
<tr>
<td>CORS 35</td>
<td>Interviewing and Counseling in Corrections</td>
<td>3</td>
<td>Spring Semester                Degree Appropriate 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.</td>
</tr>
<tr>
<td>CORS 40</td>
<td>Crime and Delinquency</td>
<td>3</td>
<td>Spring Semester                Degree Appropriate 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.</td>
</tr>
<tr>
<td>CORS 45</td>
<td>The Violent Offender</td>
<td>3</td>
<td>Spring Semester                Degree Appropriate 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.</td>
</tr>
</tbody>
</table>

#### COUNSELING

<table>
<thead>
<tr>
<th>COURSE</th>
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<th>Units</th>
<th>Prerequisites</th>
</tr>
</thead>
<tbody>
<tr>
<td>COUN 1</td>
<td>Introduction to College</td>
<td>1</td>
<td>(May be taken two times for credit.) Degree Appropriate, CSU 18 hours lecture. Introduction to higher education and the college experience. Includes orientation to college life and higher education resources. Explores graduation, transfer, and career options, factors in educational decision making, and educational planning. Students who repeat this course will improve skills through further instruction and practice.</td>
</tr>
<tr>
<td>COUN 2</td>
<td>College Success Strategies</td>
<td>3</td>
<td>(May be taken for Credit/No Credit only.) Degree Appropriate, CSU, UC 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.</td>
</tr>
<tr>
<td>COUN 5</td>
<td>Career/Life Planning</td>
<td>3</td>
<td>(May be taken for Credit/No Credit only.) Degree Appropriate, CSU, UC 54 hours lecture. 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.</td>
</tr>
<tr>
<td>COUN 20</td>
<td>Peer Counselor Training</td>
<td>2</td>
<td>(May be taken two times for credit.) Degree Appropriate, CSU 36 hours lecture. Designed for group experiences with interpersonal communication and discussion of approaches to peer counseling and advising. Provides opportunities for students to develop skills with a variety of communication styles that include open expression, active listening, and feedback. Upon completion of this course, opportunities may be available for students to become employed as peer counselors. Students who repeat this course will improve skills through further instruction and practice.</td>
</tr>
<tr>
<td>COUN 51</td>
<td>Career Planning</td>
<td>1</td>
<td>(May be taken for Credit/No Credit only.) Degree Appropriate, CSU, UC 18 hours lecture. Designed for students who want assistance in making career decisions. A variety of assessments, inventories, and computer generated information will be used in analyzing the student's potential in the world of work. Students who repeat this course will improve skills through further instruction and practice.</td>
</tr>
</tbody>
</table>
COURSE DESCRIPTIONS

Students who repeat this course will improve proficiency through continued instruction and practice. Basic vocabulary, technique and movement combinations for ballet. Students who repeat this course will improve skills through further instruction and practice.

DNCE 1 — Ballet Fundamentals 2 Units
(May be taken four times for credit.) Degree Appropriate, CSU, UC
36 hours activity.
Introduces the fundamentals of ballet and an appreciation of ballet as an art form. Students who repeat this course will improve skills through further instruction and practice.

DNCE 2A — Ballet I 1 Unit
(May be taken four times for credit.) Degree Appropriate, CSU, UC
36 hours activity.
Basic vocabulary, technique, and movement combinations for ballet. Students who repeat this course will improve proficiency through continued instruction and practice.

DNCE 2A-2 — Ballet I .5 Unit
(May be taken four times for credit.) Degree Appropriate, CSU, UC
36 hours activity.
Basic vocabulary, technique and movement combinations for ballet. Students who repeat this course will improve skills through further instruction and practice.

DNCE 2B-2 — Ballet II .5 Unit
(May be taken four times for credit.) Degree Appropriate, CSU, UC
36 hours activity.
Intermediate technique, vocabulary and movement combinations for ballet. Students who repeat this course will improve proficiency through continued instruction and practice.

DNCE 2B — Ballet II 1 Unit
(May be taken four times for credit.) Degree Appropriate, CSU, UC
54 hours activity.
Intermediate technique, vocabulary and movement combinations for ballet. Students who repeat this course will improve proficiency through continued instruction and practice.

DNCE 3 — Ballet Performance 1 Unit
(May be taken four times for credit.) Degree Appropriate, CSU, UC
36 hours activity.
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 2 Units
(May be taken four times for credit.) Degree Appropriate, CSU, UC
108 hours activity.
Advanced social dance technique. Focus on improving fundamentals of rhythm, dance positions, dance formations and introduction of advanced techniques to be used in the study of Foxtrot, Waltz, Salsa, Polka, Cha Cha and Tango.

DNCE 4-2 — Choreography .5 Unit
(May be taken four times for credit.) Degree Appropriate, CSU, UC
36 hours activity.
Prerequisite: DNCE 12A or DNCE 12B or DNCE 13
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 4-3 — Choreography 1 Unit
(May be taken four times for credit.) Degree Appropriate, CSU, UC
54 hours activity.
Prerequisite: DNCE 12A or DNCE 12B or DNCE 13
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 1 Unit
(May be taken four times for credit.) Degree Appropriate, CSU, UC
54 hours activity.
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 Foxtrot, Waltz, Salsa, Polka, Cha Cha and Tango.

DNCE 11A-2 — Social Dance Forms I .5 Unit
(May be taken four times for credit.) Degree Appropriate, CSU, UC
36 hours activity.
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 Foxtrot, Waltz, Salsa, Polka, Cha Cha and Tango.

DNCE 11B — Social Dance Forms II 1 Unit
(May be taken four times for credit.) Degree Appropriate, CSU, UC
36 hours activity.
Advanced social dance technique. Focus on improving fundamentals of rhythm, dance positions, dance formations and introduction of advanced techniques to be used in the study of Foxtrot, Waltz, Salsa, Polka, Cha Cha and Tango.

DNCE 11B-2 — Social Dance Forms II .5 Unit
(May be taken four times for credit.) Degree Appropriate, CSU, UC
36 hours activity.
Prerequisite: DNCE 12A or DNCE 12B or DNCE 13
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 108 — Social Dance Forms I 20 Units
(May be taken four times for credit.) Degree Appropriate, CSU, UC
108 hours activity.
Primarily designed for the social dancer. Focus on learning and performing basic social dances. Prerequisite: DNCE 12A or DNCE 12B or DNCE 13

DNCE 108-2 — Social Dance Forms II 1 Unit
(May be taken four times for credit.) Degree Appropriate, CSU, UC
36 hours activity.
Advanced social dance technique. Focus on improving fundamentals of rhythm, dance positions, dance formations and introduction of advanced techniques to be used in the study of Foxtrot, Waltz, Salsa, Polka, Cha Cha and Tango.
<table>
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<tr>
<th>Course Code</th>
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<tbody>
<tr>
<td>DNCE 12A</td>
<td>Modern I</td>
<td>1 Unit</td>
<td>Introduces the experienced modern dance student to an overview of modern dance styles and choreography elements, enabling them to choreograph and perform. Students who repeat this course will improve proficiency through continued instruction and practice.</td>
</tr>
<tr>
<td>DNCE 12B</td>
<td>Modern II</td>
<td>1 Unit</td>
<td>Intermediate technique and movement combinations for modern dance. Students who repeat this course will improve skills through further instruction and practice.</td>
</tr>
<tr>
<td>DNCE 13</td>
<td>Modern Performance</td>
<td>2 Units</td>
<td>Introduces the experienced modern dance student to an overview of modern dance styles and choreography elements, enabling them to choreograph and perform. Students who repeat this course will improve proficiency through continued instruction and practice.</td>
</tr>
<tr>
<td>DNCE 13-2</td>
<td>Modern Performance</td>
<td>.5 Unit</td>
<td>Introduces the experienced modern dance student to an overview of modern dance styles and choreography elements, enabling them to choreograph and perform. Students who repeat this course will improve proficiency through continued instruction and practice.</td>
</tr>
<tr>
<td>DNCE 13-3</td>
<td>Modern Performance</td>
<td>1 Unit</td>
<td></td>
</tr>
<tr>
<td>DNCE 14</td>
<td>Jazz I</td>
<td>1 Unit</td>
<td></td>
</tr>
<tr>
<td>DNCE 14A</td>
<td>Jazz I</td>
<td>.5 Unit</td>
<td></td>
</tr>
<tr>
<td>DNCE 14A-2</td>
<td>Jazz II</td>
<td>1 Unit</td>
<td></td>
</tr>
<tr>
<td>DNCE 14B</td>
<td>Jazz II</td>
<td>1 Unit</td>
<td></td>
</tr>
<tr>
<td>DNCE 14B-2</td>
<td>Jazz II</td>
<td>.5 Unit</td>
<td></td>
</tr>
<tr>
<td>DNCE 15</td>
<td>Jazz Performance</td>
<td>1 Unit</td>
<td></td>
</tr>
<tr>
<td>DNCE 15-2</td>
<td>Jazz Performance</td>
<td>.5 Unit</td>
<td></td>
</tr>
<tr>
<td>DNCE 18A</td>
<td>Tap I</td>
<td>1 Unit</td>
<td>Presents basic technique, rhythms and routines for tap dance. Students who repeat this course will improve skills through further instruction and practice.</td>
</tr>
<tr>
<td>DNCE 18A-2</td>
<td>Tap I</td>
<td>.5 Unit</td>
<td></td>
</tr>
</tbody>
</table>

Course Descriptions

Section 10 147
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>DNCE 18B — Tap II</td>
<td>1 Unit</td>
<td>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.</td>
<td></td>
</tr>
<tr>
<td>DNCE 18B-2 — Tap II</td>
<td>.5 Unit</td>
<td>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.</td>
<td></td>
</tr>
<tr>
<td>DNCE 19 — Tap Performance</td>
<td>1 Unit</td>
<td>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.</td>
<td></td>
</tr>
<tr>
<td>DNCE 18B — Tap II</td>
<td>.5 Unit</td>
<td>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.</td>
<td></td>
</tr>
<tr>
<td>DNCE 19 — Tap Performance</td>
<td>1 Unit</td>
<td>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.</td>
<td></td>
</tr>
<tr>
<td>DNCE 22 — Dance Rehearsal</td>
<td>1 Unit</td>
<td>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.</td>
<td></td>
</tr>
<tr>
<td>DNCE 22-2 — Dance Rehearsal</td>
<td>.5 Unit</td>
<td>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.</td>
<td></td>
</tr>
<tr>
<td>DNCE 24 — Dance Production</td>
<td>1 Unit</td>
<td>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.</td>
<td></td>
</tr>
<tr>
<td>DNCE 24-2 — Theater Dance I</td>
<td>1 Unit</td>
<td>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.</td>
<td></td>
</tr>
<tr>
<td>DNCE 24 — Dance Production</td>
<td>1 Unit</td>
<td>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.</td>
<td></td>
</tr>
<tr>
<td>DNCE 24-2 — Theater Dance I</td>
<td>.5 Unit</td>
<td>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.</td>
<td></td>
</tr>
<tr>
<td>DNCE 29 — Theater Dance II</td>
<td>1 Unit</td>
<td>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.</td>
<td></td>
</tr>
</tbody>
</table>
### Course Descriptions

#### DNCE 32 — Commercial Dance  
1 Unit  
(May be taken four times for credit.) Degree Appropriate, CSU, UC  
54 hours activity.  
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 practice.

#### DNCE 32-2 — Commercial Dance  
.5 Unit  
(May be taken four times for credit.) Degree Appropriate, CSU, UC  
36 hours activity.  
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 practice.

#### DNCE 33 — Improvisation  
1 Unit  
(May be taken for option of letter grade or Credit/No Credit.)  
36 hours activity.  
Provides the opportunity to experience the creative process of improvisation in dance and choreography. For all levels of modern dance. Students who repeat this course will improve proficiency through continued instruction and practice.

#### DNCE 34 — Dance Directives  
1 Unit  
(May be taken for option of letter grade or Credit/No Credit.)  
36 hours activity.  
Prerequisite: Admission by audition  
Provides the intermediate or advanced student the practical experience to assist an instructor in the creation and instruction of a dance class. Students who repeat this course will improve proficiency through continued instruction and practice.

#### DNCE 35 — Repertory  
2 Units  
(May be taken for option of letter grade or Credit/No Credit.)  
108 hours activity.  
Prerequisite: Admission by audition  
Provides the opportunity for the advanced dancer to learn choreography and to perform repertory pieces at workshops and special events. Students who repeat this course will improve skills through further instruction and practice.

#### DNCE 39A — Alignment and Correctives I  
1 Unit  
(May be taken for option of letter grade or Credit/No Credit.)  
54 hours activity.  
Based on exercises and concepts developed by Joseph Pilates. Includes basic "mat-work," floor-barre, 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 39A-2 — Alignment and Correctives I  
.5 Unit  
(May be taken for option of letter grade or Credit/No Credit.)  
36 hours activity.  
Based on exercises and concepts developed by Joseph Pilates. Includes basic "mat-work," floor-barre, 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  
1 Unit  
(May be taken for option of letter grade or Credit/No Credit.)  
54 hours activity.  
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 39B-2 — Alignment and Correctives II  
.5 Unit  
(May be taken for option of letter grade or Credit/No Credit.)  
36 hours activity.  
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  
1 Unit  
(May be taken for option of letter grade or Credit/No Credit.)  
54 hours activity.  
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.

#### DNCE 40-2 — Conditioning Through Dance  
.5 Unit  
(May be taken for option of letter grade or Credit/No Credit.)  
36 hours activity.  
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  
54 hours lecture.  
Degree Appropriate, CSU, UC  
Advisory: Eligibility for ENGL 68  
A survey of the profession of dance and its various art forms through lecture, discussion, demonstration, and participation. Includes multicultural dance interpretations.

#### DN-T 20 — History and Appreciation of Dance  
3 Units  
54 hours lecture.  
Degree Appropriate, CSU, UC  
Advisory: Eligibility for ENGL 68  
Survey of theatrical dance in Western civilization. History of dance in chronological sequence emphasizing the cultural background and historical development of various forms and styles of dance. Includes discussion of the influence of theatrical dance on other art forms.

#### DISABLED STUDENTS

#### DSPS 10 — College Transition Strategies for Students with Disabilities  
3 Units  
Non-Degree Credit  
(May be taken for option of letter grade or Credit/No Credit.)  
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 11 — Assessment of Learning Disabilities  
1 Unit  
Non-Degree Credit  
18 hours lecture.  
Advisory: Approval by DSPS Counselor or DSPS Staff  
Introduction to types and causes of learning disabilities and the legal definition of "learning disabled." Assessment according to statewide assessment procedure. Understanding learning patterns, identifying educational accommodations, and evaluating appropriate support services. Orients students to Mt. SAC's Learning Disability Program.
Course Descriptions

DSPS 15 — Personalized Career Exploration for Students with Disabilities 1 Unit
(May be taken three times for credit.) Non-Degree Credit
18 hours lecture.
Focus on self-evaluation including interests, experiences, personality, values, and disability-related limitations as they relate to educational and career decisions. Emphasis will be on the development of a future area of specialization as well as classroom observations. 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
(May be taken three times for credit.) Non-Degree Credit
18 hours lecture.
Focus 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
(May be taken three times for credit.) Pre-Collegiate
54 hours lecture.
Focus on improving 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
(May be taken four times for credit.) Non-Degree Credit
54 hours lab.
Focus on strategies for academic success in relationship to disabilities. Primary emphasis will be on the development of 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
(May be taken two times for credit.) Non-Degree Credit
54 hours lecture.
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.

DSPS 63 — Improving Communicative Effectiveness 3 Units
(May be taken four times for credit.) Non-Degree Credit
54 hours lecture.
Focus on effective communication skills for interpersonal communication and public presentations. Increases skills in effective listening, speaking conversationally, attending to the nonverbal and social "rules" of communication, and making oral presentations to a group. Prepares students for speaking classes. Students who repeat this course will improve skills through further instruction and practice.

EDUC 10 — Introduction to Education 3 Units
54 hours lecture. Degree Appropriate, CSU, UC
Focus on 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 as well as classroom observations.

EDUC 16 — Aspects and Issues in Teaching Service Learning 3 Units
54 hours lecture. Degree Appropriate, CSU, UC
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.

ELEC 10 — Introduction to Mechatronics 2 Units
18 hours lecture. Non-Degree Credit
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. Hand on activities include the building of a robot.

ELEC 11 — Technical Applications in Microcomputers 3 Units
(May be taken two times for credit.) Degree Appropriate, CSU
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 searches. Students who repeat this course will improve skills through further instruction and practice.

ELEC 12 — Computer Simulation and Troubleshooting 2 Units
(May be taken two times for credit.) Degree Appropriate
18 hours lecture.
54 hours lab.
Focus on the use of the personal computer for simulation and troubleshooting of both analog and digital electronic circuits. Circuit analysis, troubleshooting techniques, and fault diagnostics will be done with the emphasis on "Electronics Workbench/Multisim" software. Students who repeat this course will improve skills through further instruction and practice.

ELEC 50A — Electronics Theory 2 Units
36 hours lecture. Degree Appropriate, CSU
Advisory: Eligibility for MATH 51; ELEC 50AL, ELEC 61, ELMA 65A taken concurrently
Focus on the principles and issues are explored including 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.)

Advisory: Eligibility for ENGL 68
Corequisite: ELEC 50A
Laboratory experiments in DC circuitry covering concepts presented in ELEC 50A. Emphasizes safety, breadboarding skills, data collection and reporting, and test equipment.

ELEC 50B — Electronics Theory 2 Units
36 hours lecture. Degree Appropriate, CSU
Advisory: ELEC 50A taken prior; ELEC 50BL, ELMA 65A taken concurrently
Focus on AC circuitry covering resistive circuits, basic components, Ohm's Law, Kirchoff's Law, and network theorems. Analysis involves the use of complex numbers. Stresses passive components.

ELEC 50BL — Electronics Laboratory 1 Unit
54 hours lab. Degree Appropriate, CSU
Corequisite: ELEC 50B
Laboratory experiments in AC circuitry covering concepts presented in ELEC 50B. Emphasizes breadboarding skills, data collection and reporting, and test equipment.
Course Descriptions

ELEC 51L — Electronic Devices Laboratory 1 Unit
54 hours lab. Degree Appropriate, CSU
Advisory: ELEC 51 taken concurrently
Laboratory experiments in solid-state circuitry, covering concepts presented in ELEC 51. Emphasizes bread boarding skills, data collection and reporting, troubleshooting, and test equipment.

ELEC 53 — Communications Circuits Theory 3 Units
54 hours lecture. Degree Appropriate
Advisory: ELEC 51 taken prior and ELEC 53L taken concurrently
Analog and digital communication circuits theory. Emphasizes analog and digital modulation principles in AM, FM, SSB, PLL, FDM, TDM, modems, fiber optics, and telecommunications circuits.

ELEC 53L — Communications Circuits Laboratory 1 Unit
54 hours lab. Degree Appropriate
Advisory: ELEC 51 taken prior and ELEC 53 taken concurrently
Laboratory experiments in communications circuits covering concepts presented in ELEC 53. Emphasis is on proper use of test equipment, test procedures, breadboarding, and analysis in both analog and digital modulation circuits.

ELEC 54A — Industrial Circuits Theory 3 Units
54 hours lecture. Degree Appropriate, CSU
Advisory: ELEC 51 taken prior and ELEC 54AL taken concurrently
Industrial electronic components and basic control circuits. Includes time delay controls, solid-state controls, relays, opto devices, DC motor control, transducers, SCR, and UJT devices.

ELEC 54AL — Industrial Circuits Laboratory 1 Unit
54 hours lab. Degree Appropriate, CSU
Corequisite: ELEC 54A
Laboratory experiments in industrial circuits, covering concepts presented in ELEC 54A. Emphasizes basic industrial control circuits, test equipment, and proper testing procedures.

ELEC 54B — Industrial Electronic Systems 2 Units
36 hours lecture. Degree Appropriate, CSU
Advisory: ELEC 54A taken prior; ELEC 54BL taken concurrently
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.

ELEC 54BL — Industrial Electronic Systems Laboratory 1 Unit
54 hours lab. Degree Appropriate, CSU
Corequisite: ELEC 54B
Laboratory experiments in industrial control circuits, covering concepts presented in ELEC 54B. Includes troubleshooting procedures and system application of industrial electronics. Emphasizes programmable logic controllers and use of “ladder diagrams.”

ELEC 55 — Microwave Communications 3 Units
54 hours lecture. Degree Appropriate
Advisory: ELEC 53 taken prior and ELEC 55L taken concurrently
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.

ELEC 55L — Microwave Communications Laboratory 1 Unit
54 hours lab. Degree Appropriate
Advisory: ELEC 55 taken concurrently
Laboratory experiments in microwave communication theory covering concepts presented in ELEC 55. Emphasizes data collection and reporting, measurement techniques, and test equipment.

ELEC 56 — Digital Electronics 3 Units
54 hours lecture. Degree Appropriate, CSU
Advisory: ELEC 56L taken concurrently
Combinational and sequential logic circuits emphasizing number systems, binary math, basic gates, Boolean algebra, Karnaugh maps, flip-flops, counters, and registers. Stresses design and troubleshooting techniques.

ELEC 56L — Digital Electronics Laboratory 1 Unit
54 hours lab. Degree Appropriate, CSU
Corequisite: ELEC 56
Laboratory experiments in combinational and sequential logic circuits covering concepts presented in ELEC 56. Emphasizes breadboarding skills, data collection and reporting, and test equipment.

ELEC 561 — Electronic Assembly and Fabrication 2 Units
(54 hours lecture. Degree Appropriate, CSU
Corequisite: ELEC 55
(May be taken two times for credit.)
Laboratory experiments in microwave communication theory covering concepts presented in ELEC 55. Emphasizes data collection and reporting, measurement techniques, and test equipment.

ELEC 562 — Advanced Surface Mount Assembly and Rework 2 Units
(54 hours lecture. Degree Appropriate, CSU
Advisory: ELEC 561 taken concurrently
Advanced course in assembly and repair (soldering) on surface mount assemblies. Prepares for the IPC surface mount assembly and rework certifications. Students who repeat this course will improve skills through further instruction and practice.

ELEC 57 — Electrical Code-Residential 2 Units
18 hours lecture. Degree Appropriate
(54 hours lab. Non-Degree Credit
Prerequisite: ELEC 50B
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 61 — Electronic Assembly and Fabrication 2 Units
(54 hours lecture. Degree Appropriate, CSU
Corequisite: ELEC 56
(May be taken two times for credit.)
Laboratory experiments in microprocessor programming and interfacing utilizing concepts presented in the lecture portion of this class. Emphasis is on the programming and debugging of software programs and interfacing circuits.

ELEC 74 — Microprocessor Systems 3 Units
54 hours lecture. Degree Appropriate, CSU
Advisory: ELEC 56 taken prior and ELEC 74L taken concurrently
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 74L — Microprocessor Systems Laboratory 1 Unit
54 hours lab. Degree Appropriate, CSU
Corequisite: ELEC 74
Laboratory experiments in microprocessor programming and interfacing utilizing concepts presented in the lecture portion of this class. Emphasis is on the programming and debugging of software programs and interfacing circuits.

ELEC 7711/IPC-7721 Rework and Repair of Electronic Assemblies certification.
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 81 — Laboratory Studies in Electronics Technology 1 Unit
54 hours lab. Degree Appropriate
Advisory: ELEC 50B taken prior or concurrently plus a laboratory course in the same subject field
Extended laboratory experience supplementary to that available in the regular program. Allows the student to pursue more advanced and complex laboratory projects and experiments.
### Course Descriptions

**ELEC 92 — Work Experience in Electronics**  
2 Units  
(May be taken two times for credit.)  
Degree Appropriate  
108 hours lab.  
Advisory: ELEC 56  
Provides actual on-the-job experience in Electronics at an approved work site which is related to classroom instruction. A minimum of five hours per week of supervised work (60 non-paid clock hours or 75 paid clock hours per semester) is required for each one unit of credit. Students who repeat this course will improve skills through further instruction and practice.

**ELEC 91 — Work Experience in Electronics**  
1 Unit  
(May be taken two times for credit.)  
Degree Appropriate  
75 hours lab.  
Prerequisite: Compliance with Work Experience regulations as designated in the College Catalog  
Advisory: ELEC 56  
Provides actual on-the-job experience in Electronics at an approved work site which is related to classroom instruction. A minimum of five hours per week of supervised work (60 non-paid clock hours or 75 paid clock hours per semester) is required for each one unit of credit. Students who repeat this course will improve skills through further instruction and practice.

**ELEC 93 — Work Experience in Electronics**  
3 Units  
(May be taken two times for credit.)  
Degree Appropriate  
225 hours lab.  
Prerequisite: Compliance with Work Experience regulations as designated in the College Catalog  
Advisory: ELEC 56  
Provides actual on-the-job experience in Electronics at an approved work site which is related to classroom instruction. A minimum of five hours per week of supervised work (60 non-paid clock hours or 75 paid clock hours per semester) is required for each one unit of credit. Students who repeat this course will improve skills through further instruction and practice.

**ELEC 94 — Work Experience in Electronics**  
4 Units  
(May be taken two times for credit.)  
Degree Appropriate  
300 hours lab.  
Prerequisite: Compliance with Work Experience regulations as designated in the College Catalog  
Advisory: ELEC 56  
Provides actual on-the-job experience in Electronics at an approved work site which is related to classroom instruction. A minimum of five hours per week of supervised work (60 non-paid clock hours or 75 paid clock hours per semester) is required for each one unit of credit. Students who repeat this course will improve skills through further instruction and practice.

**Elma 65A — Mathematics of Electronics**  
2 Units  
36 hours lecture.  
Degree Appropriate, CSU  
Advisory: Eligibility for MATH 51; ELEC 50A taken concurrently  
Mathematics of AC circuits analyzing passive circuits including Ohm’s Law, Kirchoff’s Law, voltage dividers, current dividers, and network theorems.

**ELEC 65B — Mathematics of Electronics**  
2 Units  
36 hours lecture.  
Degree Appropriate, CSU  
Advisory: ELMA 65A taken prior; ELEC 50B taken concurrently  
Mathematics of AC circuits analyzing passive circuits including resistance, reactance, impedance, resonance, and complex numbers (polar and rectangular).

**ELECTRONICS SYSTEMS TECHNOLOGY**

**EST 50 — Electrical Fundamentals for Cable Installations**  
4 Units  
54 hours lecture.  
Degree Appropriate  
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 Installations**  
4 Units  
54 hours lecture.  
Degree Appropriate  
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  
54 hours lecture.  
Degree Appropriate  
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, & Home Security Systems**  
4 Units  
54 hours lecture.  
Degree Appropriate  
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  
54 hours lecture.  
Degree Appropriate  
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  
54 hours lecture.  
Degree Appropriate  
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  
(May be taken two times for credit.)  
Degree Appropriate  
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.

**EMERGENCY MEDICAL SERVICE**

**EMS 1 — Fundamentals for Paramedics**  
4 Units  
(May be taken two times for credit.)  
Degree Appropriate  
72 hours lecture.  
Prerequisite: Completed Paramedic Program application, current California EMT I (Basic) certificate, and six months employment as an EMT I  
Advisory: Eligibility for ENGL 68  
Overview of emergency medical services (EMS) competencies, current practices, medical terminology, emphasis on applied physiology and structure and function of human body systems. Pre-course for the Paramedic Program. 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>Class Hours</th>
<th>Prerequisites</th>
</tr>
</thead>
<tbody>
<tr>
<td>EMS 10</td>
<td>Anatomy and Physiology for Paramedics</td>
<td>2 Units</td>
<td>39 lecture</td>
<td>Degree Appropriate</td>
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<td>Prerequisite: Admission to Paramedic Program and EMS 1</td>
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<td>Corequisite: EMS 20, EMS 30, EMS 40, EMS 50, and EMS 60</td>
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<td>Gross anatomy and physiology of the human body, with applications to</td>
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<td>paramedic practices.</td>
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<td>EMS 20</td>
<td>Emergency Cardiac Care for Paramedics</td>
<td>1 Unit</td>
<td>20 lecture</td>
<td>Degree Appropriate</td>
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<td>Prerequisite: Admission to the Paramedic Program</td>
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<td>Corequisite: EMS 10, EMS 20, EMS 30, EMS 40, and EMS 60</td>
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<td>6 hours lab.</td>
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<td>Prerequisite: Admission to the Paramedic Program</td>
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<td>Corequisite: EMS 10, EMS 30, EMS 40, EMS 50, and EMS 60</td>
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<td>Certifies paramedics in Basic Life Support (BLS-CPR), Pediatric Advanced</td>
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<td>Life Support (PALS), and Advanced Cardiac Life Support (ACLS).</td>
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<tr>
<td>EMS 30</td>
<td>Pharmacology for Paramedics</td>
<td>2 Units</td>
<td>39 lecture</td>
<td>Degree Appropriate</td>
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<td>Prerequisite: Admission to the Paramedic Program</td>
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<td>Corequisite: EMS 10, EMS 20, EMS 40, EMS 50, and EMS 60</td>
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<td>13 hours lab.</td>
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<td>Prerequisite: Admission to the Paramedic Program</td>
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<td>Corequisite: EMS 10, EMS 20, EMS 30, EMS 50, and EMS 60</td>
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<td>Commonly used paramedic drugs, with emphasis on dosages supplied</td>
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<td>and ordered, routes of administration, expected therapeutic outcomes</td>
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<td>and possible adverse reactions.</td>
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<tr>
<td>EMS 40</td>
<td>Cardiology for Paramedics</td>
<td>5 Units</td>
<td>91 lecture</td>
<td>Degree Appropriate</td>
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<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</td>
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<td></td>
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<td></td>
<td></td>
<td>91 hours lecture.</td>
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<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</td>
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<td></td>
<td>Familiarizes the paramedic with the normal and the diseased heart;</td>
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<td></td>
<td></td>
<td>includes assessment tools, interpretation of various dysrhythmias and</td>
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<td></td>
<td></td>
<td></td>
<td>appropriate paramedic interventions.</td>
</tr>
<tr>
<td>EMS 50</td>
<td>Paramedic Skills Competency</td>
<td>4.5 Units</td>
<td>52 lecture</td>
<td>Degree Appropriate</td>
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<td></td>
<td></td>
<td></td>
<td>104 hours lab.</td>
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<td></td>
<td>Prerequisite: Admission to the Paramedic Program</td>
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<td></td>
<td></td>
<td>Corequisite: EMS 10, EMS 20, EMS 30, EMS 40, and EMS 60</td>
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<tr>
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<td></td>
<td>Perfect the paramedic skills required for field operation as a paramedic</td>
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<td></td>
<td></td>
<td>and for certification in competency-based exams.</td>
</tr>
<tr>
<td>EMS 60</td>
<td>EMS Theory for Paramedics</td>
<td>8.5 Units</td>
<td>156 lecture</td>
<td>Degree Appropriate</td>
</tr>
<tr>
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<td></td>
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<td></td>
<td>Prerequisite: Admission to the Paramedic Program</td>
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<td></td>
<td></td>
<td>Corequisite: EMS 10, EMS 20, EMS 30, EMS 40, and EMS 50</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Theories and principles of paramedic practices, including assessment skills,</td>
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<td></td>
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<td>care of the sick and injured at a paramedic level, with applications to</td>
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<td></td>
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<td>anatomy and physiology, pathologic processes, and mechanism of injury.</td>
</tr>
<tr>
<td>EMS 70</td>
<td>Paramedic Clinical Internship</td>
<td>3.5 Units</td>
<td>200 lecture</td>
<td>Degree Appropriate</td>
</tr>
<tr>
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<td></td>
<td>Corequisite: EMS 60 (May have been taken previously)</td>
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<tr>
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<td></td>
<td></td>
<td>Application of concepts of paramedic theory and practices, with emphasis on</td>
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<td></td>
<td></td>
<td>patient assessment and utilization of paramedic skills in a hospital setting.</td>
</tr>
<tr>
<td>EMS 80</td>
<td>Paramedic Field Externship</td>
<td>8.5 Units</td>
<td>480 lecture</td>
<td>Degree Appropriate</td>
</tr>
<tr>
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<td></td>
<td></td>
<td>Corequisite: EMS 70 (May have been taken previously)</td>
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<td>Application of concepts of paramedic theory and practices, with emphasis on</td>
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<td>patient assessment and utilization of paramedic skills in a field setting on</td>
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<td>an operational paramedic unit.</td>
</tr>
<tr>
<td>EMT 90</td>
<td>Emergency Medical Technician I</td>
<td>10 Units</td>
<td>144 lecture</td>
<td>Degree Appropriate</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Prerequisite: High school graduation or equivalent and minimum of 18 years of</td>
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<td>age. Approved by the L.A. County and State Departments of Health.</td>
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<td>Emphasizes the development of skill in recognition of symptoms of illnesses</td>
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<td>and injuries, and proper procedures of pre-hospital emergency care.</td>
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<td></td>
<td></td>
<td>Awards an EMT-I Course Completion Certificate, necessary for many</td>
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<td>jobs in emergency care and is a prerequisite for entry into a paramedic</td>
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<td></td>
<td></td>
<td></td>
<td>program and most fire department jobs.</td>
</tr>
<tr>
<td>EMT 90</td>
<td>Emergency Medical Technician I Refresher</td>
<td>2 Units</td>
<td>126 lecture</td>
<td>Degree Appropriate</td>
</tr>
<tr>
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<td></td>
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<td></td>
<td>Prerequisite: High school graduation or equivalent and minimum of 18 years of</td>
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<td>age. Approved by the L.A. County and State Departments of Health.</td>
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<td>Emphasizes the development of skill in recognition of symptoms of illnesses</td>
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<td>and injuries, and proper procedures of pre-hospital emergency care.</td>
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<td>Awards an EMT-I Course Completion Certificate, necessary for many</td>
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<td>jobs in emergency care and is a prerequisite for entry into a paramedic</td>
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<td>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 Units</td>
<td>40 lecture</td>
<td>Degree Appropriate</td>
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<tr>
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<td></td>
<td>Prerequisite: Completion of a State or County Department of Health (or</td>
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<td>out-of-state) approved course and possession of a currently valid EMT-I</td>
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<td>certificate or one which has expired for more than 20 months</td>
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<td>Approved by the L.A. County and State Departments of Health. Required of all</td>
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<td>Emergency Medical Technician-I personnel every two years in order to maintain</td>
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<td>eligibility for employment in an emergency response agency and to keep</td>
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<td>certification valid. Course covers all required material and current changes/</td>
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<td>updates in pre-hospital emergency care at the EMT-I level</td>
</tr>
</tbody>
</table>

### Engineering

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Class Hours</th>
<th>Prerequisites</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGR 1</td>
<td>Introduction to Engineering</td>
<td>1 Unit</td>
<td>18 lecture</td>
<td>Degree Appropriate</td>
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<td>(May be taken for option of letter grade or Credit/No Credit.)</td>
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<td></td>
<td>18 hours lecture.</td>
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<td>Introduction to the engineering profession, academic requirements, articulation</td>
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<td>agreements with four-year institutions, engineering ethics, professional</td>
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<td>engineering licensure, engineering study as a preparation for other careers,</td>
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<td>and academic success strategies.</td>
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<tr>
<td>ENGR 8</td>
<td>Properties of Materials</td>
<td>4 Units</td>
<td>72 lecture</td>
<td>Degree Appropriate</td>
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<td>(May be taken for option of letter grade or Credit/No Credit.)</td>
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<td></td>
<td>72 hours lecture.</td>
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<td>Prerequisite: CHEM 40 or 50 and PHYS 4A or 2A</td>
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<td>Mechanical, electrical, magnetic, optical and thermal properties of</td>
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<td>engineering materials and their relation to the materials' internal structure.</td>
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<td>Atomic structure and bonding, crystalline structures, phase and phase</td>
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<td>diagrams, metals, polymers, ceramics, composites, mechanical deformation and</td>
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<td>fracture, structural control and influence of properties, materials naming</td>
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<td>and designating systems, corrosion process, lasers, semiconductors, and</td>
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<td>electronic packaging materials.</td>
</tr>
<tr>
<td>ENGR 18</td>
<td>Introduction to Engineering Graphics</td>
<td>3 Units</td>
<td>36 lecture</td>
<td>Degree Appropriate</td>
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<td>(May be taken for option of letter grade or Credit/No Credit.)</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></td>
<td>Fundamental engineering graphics and problem solving techniques. Skills in</td>
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<td>freehand and instrument drawing are developed and applied to the solution of</td>
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<td>problems. Orthographic, isometric and oblique drawings.</td>
</tr>
</tbody>
</table>
**ENGR 24 — Engineering Graphics** 4 Units
(CAN ENGR 2)
Degree Appropriate, CSU, UC
36 hours lecture.
108 hours lab.
Prerequisite: ENGR 18 and eligibility for MATH 51
Advisory: COMP 15A
Graphical expression through CAD, freehand sketching and instrument drawing; orthographic, isometric and oblique drawing and dimensioning, tolerancing, Fasteners, cams, gears, pipe drawings. Descriptive geometry: points, lines and planes. Intersections and developments of solids; sheet metal; electrical and civil engineering/surveying drawings.

**ENGR 40 — Statics** 3 Units
54 hours lecture.
Degree Appropriate, CSU, UC
Prerequisite: PHYS 4A

**ENGR 41 — Dynamics** 3 Units
54 hours lecture.
Degree Appropriate, CSU, UC
Prerequisite: ENGR 40

**ENGR 42 — Mechanics of Materials** 3 Units
54 hours lecture.
Degree Appropriate, CSU, UC
Prerequisite: ENGR 40

**ENGR 43 — Statics and Dynamics** 4 Units
72 hours lecture.
Degree Appropriate, CSU, UC
Prerequisite: PHYS 4A
Advisory: Eligibility for ENGL 6B
Statics and dynamics of particles and rigid bodies. Statics, kinematics and kinetics of particles and rigid bodies. Applications of Newton's Laws, work energy, and impulse-momentum methods.

**ENGR 44 — Electrical Engineering** 4 Units
Spring Semester
Degree Appropriate, CSU, UC
(CAN ENGR 6)
54 hours lecture.
54 hours lab.
Prerequisite: PHYS 4B
Introduction to electrical circuit analysis, systems of units, applications of Kirchhoff's Laws and Thevenin's Theorems to D-C and A-C circuits. Mesh and nodal analysis, RL and RC transients, phasors and steady-state sinusoidal analysis, response as a function of frequency, current, voltage, and power relationships, polyphase circuits, periodic forcing functions, Norton's Theorem, and three-phase circuits.

**ENGINEERING DESIGN TECHNOLOGY**

**EDT 11 — Technical Engineering Drawing I** 3 Units
36 hours lecture.
Degree Appropriate, CSU, UC
72 hours lab.
Advisory: Eligibility for MATH 51
Basic skills for a solid foundation in the Engineering Drawing or Computer-Aided Design fields. Involves application, basic sketch, theories and design processes used in engineering and industrial drawings. Completion of a portfolio is a requirement of this course.

**EDT 12 — Technical Engineering Drawing II** 3 Units
36 hours lecture.
Degree Appropriate, CSU, UC
72 hours lab.
Advisory: EDT 11
Advanced applications, automated techniques, dimensioning, tolerancing, fasteners, piping, circuit board design, theory used in engineering and industrial drawings. Students will complete a set of working drawings (either manual or CAD) for inclusion in a portfolio.

**EDT 14 — Mechanical Design – Geometric Dimensioning and Tolerancing** 3 Units
36 hours lecture.
Degree Appropriate, CSU, UC
72 hours lab.
Advisory: EDT 11, EDT 12
Use of symbols for tolerance of form and tolerance of position and drawing requirements with respect to actual function and relationship of part features. Studies of related terminology, power transmission, bearing and mechanical devices, related exercises including design layout, details and assembly drawings. Completion of a portfolio is a requirement of this course.

**EDT 16 — Basic CAD and Computer Applications** 4 Units
(May be taken two times for credit.)
Degree Appropriate, CSU, UC
54 hours lecture.
54 hours lab.
Advisory: Eligibility for MATH 51
Basic CAD (Computer Aided Design and Drafting) and computer application in architecture, engineering and related fields (including basic word processing, spreadsheet, CAD and presentation applications). Students who repeat this course will improve skills through further instruction and practice.

**EDT 18 — Engineering CAD Applications** 4 Units
(May be taken three times for credit.)
Degree Appropriate, CSU, UC
54 hours lecture.
54 hours lab.
Advisory: EDT 11, EDT 16
Intermediate CAD for engineering, explores the 2-D and 3-D environments, 3-D parametric solid modeling, file manipulation related to Windows platforms. Students who repeat this course will improve proficiency and skill levels.

**EDT 20 — Technical Descriptive Geometry** 3 Units
Spring Semester
Degree Appropriate, CSU, UC
36 hours lecture.
72 hours lab.
Advisory: EDT 11
Advanced course for solving visual and spatial problems graphically. Applies the principles of orthographic projection and 3-D visualization to solve problems that involves lines, planes, intersections, auxiliary views, and developments. A time saving skill necessary for prospective engineers and technology students.

**EDT 24 — Engineering CAD 3-D Solids and Surfaces** 3 Units
(May be taken two times for credit.)
Degree Appropriate, CSU, UC
36 hours lecture.
72 hours lab.
Advisory: EDT 18
Advanced engineering CAD for developing detailed working drawings in 3-D environments, incorporating 3-D parametric solid modeling, bill of materials, and surface development. Students who repeat this course will improve proficiency and skill levels.

**EDT 26 — Civil Engineering Technology and CAD** 3 Units
Degree Appropriate, CSU, UC
36 hours lecture.
72 hours lab.
Advisory: EDT 11, EDT 16
Theory of civil engineering projects with hands-on instruction in civil drawings and Computer Aided Drafting and Design (CAD) applications. Layout, topography maps, grading plans, sections, street improvements, and interpretation of surveyor's data are covered. Set of CAD drawings produced for a final portfolio.

**EDT 28 — Engineering CAD 3-D Illustration/Animation** 3 Units
(May be taken three times for credit.)
Degree Appropriate, CSU, UC
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). Students who repeat this course will improve skills through further instruction and practice.
### ENGLISH: COMPOSITION

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Description</th>
<th>Prerequisites</th>
<th>Hours</th>
<th>Degree Appropriate, CSU, UC</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 1A</td>
<td>Freshman Composition</td>
<td>4</td>
<td>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.</td>
<td>ENGL 68 or satisfactory score on the English Placement Test</td>
<td>72</td>
<td>Yes</td>
</tr>
<tr>
<td>ENGL 1AH</td>
<td>Freshman Composition – Honors</td>
<td>4</td>
<td>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.</td>
<td>Acceptance into the Honors Program</td>
<td>72</td>
<td>Yes</td>
</tr>
<tr>
<td>ENGL 1B</td>
<td>English – Introduction to Literary Types</td>
<td>3</td>
<td>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.</td>
<td>ENGL 1A or ENGL 1AH</td>
<td>54</td>
<td>Yes</td>
</tr>
<tr>
<td>ENGL 1BH</td>
<td>English – Introduction to Literary Types – Honors</td>
<td>3</td>
<td>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. An honors course designed to provide an enriched experience. Students may not receive credit for both ENGL 1B and ENGL 1BH.</td>
<td>ENGL 1A or ENGL 1AH and acceptance into the Honors Program</td>
<td>54</td>
<td>Yes</td>
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<tr>
<td>ENGL 1C</td>
<td>Critical Thinking and Writing</td>
<td>4</td>
<td>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.</td>
<td>ENGL 1A or ENGL 1AH</td>
<td>72</td>
<td>Yes</td>
</tr>
<tr>
<td>ENGL 1CH</td>
<td>Critical Thinking and Writing – Honors</td>
<td>4</td>
<td>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. An honors course designed to provide an enriched experience. Students may not receive credit for both ENGL 1C and ENGL 1CH.</td>
<td>ENGL 1A or ENGL 1AH and acceptance into the Honors Program</td>
<td>72</td>
<td>Yes</td>
</tr>
<tr>
<td>ENGL 8A</td>
<td>Creative Writing – Fiction</td>
<td>3</td>
<td>Improve sentence writing skills through the analysis and application of sentence elements. Includes the identification and correction of common sentence problems, such as comma splice, fragment, and run-on. Students who repeat this course will improve skills through further instruction and practice.</td>
<td>ENGL 6 or ENGL 8B = CAN ENGL 6</td>
<td>54</td>
<td>Yes</td>
</tr>
<tr>
<td>ENGL 8B</td>
<td>Creative Writing – Poetry</td>
<td>3</td>
<td>Improve sentence writing skills through the analysis and application of sentence elements. Includes the identification and correction of common sentence problems, such as comma splice, fragment, and run-on. Students who repeat this course will improve skills through further instruction and practice.</td>
<td>May be taken two times for credit.</td>
<td>54</td>
<td>Yes</td>
</tr>
<tr>
<td>ENGL 9</td>
<td>Writing the Personal Journal</td>
<td>3</td>
<td>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. An honors course designed to provide an enriched experience. Students may not receive credit for both ENGL 1B and ENGL 1BH.</td>
<td>May be taken for option of letter grade or Credit/No Credit.</td>
<td>72</td>
<td>Yes</td>
</tr>
<tr>
<td>ENGL 10</td>
<td>Writing Enhancement</td>
<td>1</td>
<td>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. An honors course designed to provide an enriched experience. Students may not receive credit for both ENGL 1B and ENGL 1BH.</td>
<td>May be taken for option of letter grade or Credit/No Credit.</td>
<td>18</td>
<td>Yes</td>
</tr>
<tr>
<td>ENGL 64</td>
<td>Writing Effective Sentences</td>
<td>1</td>
<td>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. An honors course designed to provide an enriched experience. Students may not receive credit for both ENGL 1B and ENGL 1BH.</td>
<td>May be taken for option of letter grade or Credit/No Credit.</td>
<td>18</td>
<td>Yes</td>
</tr>
<tr>
<td>ENGL 65</td>
<td>Grammar Review</td>
<td>1</td>
<td>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. An honors course designed to provide an enriched experience. Students may not receive credit for both ENGL 1B and ENGL 1BH.</td>
<td>May be taken for option of letter grade or Credit/No Credit.</td>
<td>18</td>
<td>Yes</td>
</tr>
</tbody>
</table>
ENGL 66 — Paragraph Writing 1 Unit
(May be taken two times for credit.) Pre-Collegiate
(May be taken for option of letter grade or Credit/No Credit.)
18 hours lecture.
Prerequisite: Eligibility for ENGL 67
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 two times for credit.) Pre-Collegiate
(May be taken for option of letter grade or Credit/No Credit.)
72 hours lecture.
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. Students who repeat
this course will improve skills through further instruction and practice.

ENGL 68 — Preparation for College Writing 4 Units
(May be taken two times for credit.) Degree Appropriate
(May be taken for option of letter grade or Credit/No Credit.)
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. Students who repeat
this course will improve skills through further instruction and practice.

ENGL 75 — Vocabulary Building 3 Units
(May be taken two times for credit.) Pre-Collegiate
(May be taken for option of letter grade or Credit/No Credit.)
54 hours lecture.
Prerequisite: Eligibility for ENGL 67
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
54 hours lecture.
Prerequisite: ENGL 1A
Introductory course in language structure, linguistics, language
development. Explores first and second-language acquisition. Meets the
Commission on Teaching Credentialing standards for Language
Acquisition requirement for elementary school teaching credential.

ENGL 99 — Special Projects in English 2 Units
(May be taken four times for credit.) Degree Appropriate, CSU
(May be taken for option of letter grade or Credit/No Credit.)
36 hours lecture.
To offer selected students recognition for their academic interests and
ability and the opportunity to explore their disciplines to greater depth,
the various departments from time to time offer Special Projects
courses. The content of each course and the methods of study vary from
semester to semester and depend on the particular project under
consideration. Students repeating this course will make individual
contracts of a more advanced nature with the instructor to ensure that
proficiencies are enhanced.

ENGLISH: LITERATURE

LIT 1 — Early American Literature 3 Units
(CAN ENGL14)
Degree Appropriate, CSU, UC
Prerequisite: ENGL 1A
American literature of the seventeenth, eighteenth and nineteenth
centuries. Emphasizes writers who created an American literary identity
and shaped America’s cultural mythology.

LIT 2 — Modern American Literature 3 Units
(CAN ENGL16)
Degree Appropriate, CSU, UC
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 6A — Survey of English Literature 3 Units
Degree Appropriate, CSU, UC
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 Appropriate, CSU, UC
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 Appropriate, CSU, UC
(May be taken for option of letter grade or Credit/No Credit.)
54 hours lecture.
Prerequisite: ENGL 1A
A survey of Shakespeare’s histories, tragedies, comedies, and selected
sonnets with their historical and literary context, emphasizing their
relevance to contemporary culture and values.

LIT 11A — World Literature 3 Units
Degree Appropriate, CSU, UC
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.

LIT 11B — World Literature 3 Units
Degree Appropriate, CSU, UC
Prerequisite: ENGL 1A
An introductory survey course of European literature (17th to the 20th
centuries) that explores the significant and representative literary works
of the major authors of these periods. Emphasis on the aesthetic, social
and philosophical values and ideas that influenced these authors and
the development of 20th century thought.

LIT 14 — Introduction to Modern Poetry 3 Units
(CAN ENGL20)
Degree Appropriate, CSU, UC
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
Degree Appropriate, CSU, UC
Prerequisite: ENGL 1A
Examines the significant poetry of England and America in the 20th
century, with the major emphasis on contemporary poems.

LIT 19 — African American Literature 3 Units
Degree Appropriate, CSU, UC
(May be taken for option of letter grade or Credit/No Credit.)
54 hours lecture.
Prerequisite: ENGL 1A
Surveys 18th, 19th and 20th 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.
<table>
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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>LIT 25</td>
<td>Contemporary Mexican American Literature</td>
<td>3</td>
<td>Degree Appropriate, CSU, UC (May be taken for option of letter grade or Credit/No Credit.) 54 hours lecture.&lt;br&gt;Preqisite: ENGL 1A&lt;br&gt;Issues of contemporary Mexican-American literature, drama, and film. Includes discussion of the roles played by gender, religion, language, education, family, ethnic identity, and class. Also addresses application of literary tools such as symbolism, language, and theme.</td>
</tr>
<tr>
<td>LIT 33</td>
<td>Images of Women in Literature</td>
<td>3</td>
<td>Degree Appropriate, CSU, UC (May be taken for option of letter grade or Credit/No Credit.) 54 hours lecture.&lt;br&gt;Preqisite: ENGL 1A&lt;br&gt;Survey of selected pieces of literature, poetry, short stories and novels which reflect significant ideas and attitudes about women. The Women's Rights Movement will also be explored through an intensive examination of the changing images of women in society as portrayed by both male and female authors. Some contemporary critical material will be used.</td>
</tr>
<tr>
<td>LIT 35</td>
<td>Science Fiction and Fantasy Survey</td>
<td>3</td>
<td>Degree Appropriate, CSU, UC (May be taken for option of letter grade or Credit/No Credit.) 54 hours lecture.&lt;br&gt;Preqisite: ENGL 1A&lt;br&gt;A chronological survey of science (or speculative) fiction and fantasy from earliest classics to the present day. Examines early attempts by Aristophanes, Swift, and the &quot;fathers&quot; – H.G. Wells and Verne. Will emphasize contemporary writers such as Bradbury, Heinlein, Vonnegut, Ellison, Sturgeon, Asimov, and Clarke. Definitions and quality standards will be evolved.</td>
</tr>
<tr>
<td>LIT 36</td>
<td>Introduction to Mythology</td>
<td>3</td>
<td>Degree Appropriate, CSU, UC (May be taken for option of letter grade or Credit/No Credit.) 54 hours lecture.&lt;br&gt;Preqisite: ENGL 1A&lt;br&gt;A survey of major myths, including creation, fertility, and hero myths. Explores theories and approaches to these archetypal stories and the ways that they reflect and shape culture. Emphasis is on classical myths, but myths from around the world may be included.</td>
</tr>
<tr>
<td>LIT 40</td>
<td>Children's Literature</td>
<td>3</td>
<td>Degree Appropriate, CSU (May be taken for option of letter grade or Credit/No Credit.) 54 hours lecture.&lt;br&gt;Preqisite: ENGL 1A&lt;br&gt;Designed to give the student a knowledge and an appreciation of children's books, both fiction and non-fiction, from around the world. Special emphasis is given to analysis and interpretation of thematic and literary elements, suitability for age group, quality of writing and illustration, award-winning books, and issues related to cultural patterns, bias and persuasiveness.</td>
</tr>
<tr>
<td>LIT 46</td>
<td>The Bible As Literature: Old Testament</td>
<td>3</td>
<td>Degree Appropriate, CSU, UC (May be taken for option of letter grade or Credit/No Credit.) 54 hours lecture.&lt;br&gt;Preqisite: ENGL 1A&lt;br&gt;Considers the Bible as a collection of literary texts and applies the principles of literary historical analysis to the Old Testament.</td>
</tr>
<tr>
<td>LIT 47</td>
<td>The Bible As Literature: New Testament</td>
<td>3</td>
<td>Degree Appropriate, CSU, UC (May be taken for option of letter grade or Credit/No Credit.) 54 hours lecture.&lt;br&gt;Preqisite: ENGL 1A&lt;br&gt;Considers the Bible as a collection of literary texts and applies the principles of literary and historical analysis to selected books of the Old Testament and the New Testament.</td>
</tr>
<tr>
<td>FCS 41</td>
<td>Life Management</td>
<td>3</td>
<td>Degree Appropriate (May be taken for option of Credit/No Credit only.) 54 hours lecture.&lt;br&gt;Preqisite: ENGL 1A&lt;br&gt;Life management provides individuals with skills for understanding and using resources for effective functioning now and in the future. Explores theories of management including systems thinking and applies to the day-to-day use of one's resources including time, energy, abilities, and money. Major topics include steps in goal setting; problem solving and value clarifications; time, energy, stress, and conflict management; effect of cultural forces and future trends on goals, values, standards, and time management.</td>
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<tr>
<td>FCS 80</td>
<td>Financial Planning</td>
<td>3</td>
<td>Degree Appropriate (May be taken for option of Credit/No Credit only.) 54 hours lecture.&lt;br&gt;Preqisite: ENGL 1A&lt;br&gt;Financial functional to personal finance, including budget systems, consumer credit, health care and insurance, debt collection systems, status obligation, accumulating reserves. Examines short-term and long-term financial goals. Applicable for personal and professional use. Students may not earn credit for both BUSA 71 and FCS 80.</td>
</tr>
<tr>
<td>FCS 81</td>
<td>Laboratory Studies in Family and Consumer Sciences</td>
<td>1</td>
<td>Degree Appropriate (May be taken for option of Credit/No Credit only.) 54 hours lab.&lt;br&gt;Preqisite: Laboratory course in the same subject field and program specialization and depending on space availability&lt;br&gt;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 Family and Consumer Sciences.</td>
</tr>
<tr>
<td>FCS 82</td>
<td>Laboratory Studies in Family and Consumer Sciences</td>
<td>2</td>
<td>Degree Appropriate (May be taken for option of Credit/No Credit only.) 108 hours lab.&lt;br&gt;Preqisite: Laboratory course in the same subject field and program specialization and depending on space availability&lt;br&gt;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 Family and Consumer Sciences.</td>
</tr>
<tr>
<td>FCS 83</td>
<td>Laboratory Studies in Family and Consumer Sciences</td>
<td>3</td>
<td>Degree Appropriate (May be taken for option of Credit/No Credit only.) 162 hours lab.&lt;br&gt;Preqisite: Laboratory course in the same subject field and program specialization and depending on space availability&lt;br&gt;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 Family and Consumer Sciences.</td>
</tr>
<tr>
<td>FCS 84</td>
<td>Laboratory Studies in Family and Consumer Sciences</td>
<td>4</td>
<td>Degree Appropriate (May be taken for option of Credit/No Credit only.) 216 hours lab.&lt;br&gt;Preqisite: Laboratory course in the same subject field and program specialization and depending on space availability&lt;br&gt;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 Family and Consumer Sciences.</td>
</tr>
<tr>
<td>FCS 89</td>
<td>Laboratory Studies in Family and Consumer Sciences</td>
<td>1</td>
<td>Degree Appropriate (May be taken for option of Credit/No Credit only.) 75 hours lab.&lt;br&gt;Preqisite: Compliance with work experience regulations as designated in the College Catalog&lt;br&gt;Provides Family and Consumer Sciences majors with actual on-the-job experience in an approved work site related to classroom instruction. A minimum of 75 paid or 60 non-paid clock hours per semester of supervised work is required for each unit of credit. It is recommended that the hours per week be equally distributed throughout the semester. Work experience placement is not guaranteed but assistance is provided by the Family and Consumer Sciences faculty. Students who repeat this course will improve skills through further instruction and practice.</td>
</tr>
</tbody>
</table>
| FCS 90      | Work Experience in Family and Consumer Sciences       | 2     | Degree Appropriate (May be taken for option of Credit/No Credit only.) 150 hours lab.<br>Preqisite: Compliance with work experience regulations as designated in the College Catalog<br>Provides Family and Consumer Sciences majors with actual on-the-job experience in an approved work site related to classroom instruction. A minimum of 75 paid or 60 non-paid clock hours per semester of supervised work is required for each unit of credit. It is recommended that
## Course Descriptions

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.

### FCS 93 — Work Experience in Family and Consumer Sciences 3 Units
(May be taken four times for credit.) Degree Appropriate
(May be taken for Credit/No Credit only.)
225 hours lab.
Prerequisite: Compliance with work experience regulations as designated in the College Catalog
Provides Family and Consumer Sciences majors with actual on-the-job experience in an approved work site related to classroom instruction. A minimum of 75 paid or 60 non-paid clock hours per semester of supervised work is required for each unit of credit. It is recommended that the hours per week be equally distributed throughout the semester. Work experience placement is not guaranteed but assistance is provided by the Family and Consumer Sciences faculty. Students who repeat this course will improve skills through further instruction and practice.

### FCS 94 — Work Experience in Family and Consumer Sciences 4 Units
(May be taken four times for credit.) Degree Appropriate
(May be taken for Credit/No Credit only.)
300 hours lab.
Prerequisite: Compliance with work experience regulations as designated in the College Catalog
Provides Family and Consumer Sciences majors with actual on-the-job experience in an approved work site related to classroom instruction. A minimum of 75 paid or 60 non-paid clock hours per semester of supervised work is required for each unit of credit. It is recommended that the hours per week be equally distributed throughout the semester. Work experience placement is not guaranteed but assistance is provided by the Family and Consumer Sciences faculty. Students who repeat this course will improve skills through further instruction and practice.

### Fashion Merchandising & Design

<table>
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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Prerequisites</th>
<th>Credit/No Credit Options</th>
<th>Degree Appropriate/CSU</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>FASH 1</td>
<td>Fashion Design and CAD Lab</td>
<td>1 Unit</td>
<td>(May be taken three times for credit.)</td>
<td>Degree Appropriate</td>
<td>(May be taken for Credit/No Credit only.)</td>
<td>54 hours lab. Provides design and computer laboratory experience to supplement regular program, and provides opportunities for students to pursue more advanced projects. Students who repeat this course will improve skills through further instruction and practice.</td>
</tr>
<tr>
<td>FASH 8</td>
<td>Introduction to Fashion</td>
<td>3 Units</td>
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<td>Degree Appropriate, CSU</td>
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<td>Examines scope of the fashion industry from concept to consumer: industry background and technology. Includes design, manufacturing, distribution, sales and promotion with emphasis on career opportunities and qualifications.</td>
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<tr>
<td>FASH 9</td>
<td>History of Costume and Fashion</td>
<td>3 Units</td>
<td></td>
<td>Degree Appropriate, CSU</td>
<td></td>
<td>A survey of Western costume and fashion from antiquity to contemporary times. Emphasis is placed on style development as it relates to social, economic and political forces, and the relationship of historic styles to current fashion.</td>
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<tr>
<td>FASH 10</td>
<td>Clothing Construction I</td>
<td>3 Units</td>
<td></td>
<td>Degree Appropriate, CSU</td>
<td></td>
<td>Development of a basic understanding of industry standard apparel construction techniques using a variety of machines and equipment. Included are marker preparation, commercial patterns, basic block fusing, and garment construction of slim skirt/pants, dress/shirt, and knit “T” shirt.</td>
</tr>
<tr>
<td>FASH 12</td>
<td>Clothing Construction II</td>
<td>3 Units</td>
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<td>Degree Appropriate, CSU</td>
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<tr>
<td>FASH 15</td>
<td>Fashion Strategies</td>
<td>3 Units</td>
<td></td>
<td>Degree Appropriate, CSU</td>
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<td>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.</td>
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<tr>
<td>FASH 17</td>
<td>Textiles</td>
<td>3 Units</td>
<td></td>
<td>Degree Appropriate, CSU, UC</td>
<td></td>
<td>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.</td>
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<tr>
<td>FASH 20</td>
<td>Illustration for Fashion and Costume Design</td>
<td>3 Units</td>
<td>(May be taken two times for credit.)</td>
<td>Degree Appropriate</td>
<td>36 hours lecture. 54 hours lab. Drawing techniques for fashion and theatrical costume design. Application of the basic techniques used in drawing a well-proportioned male and female figure and in rendering garment flats using texture, fabric, and design detail. Students will explore a variety of mediums. Students who repeat this course will improve skills through further instruction and practice.</td>
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<tr>
<td>FASH 21</td>
<td>Patternmaking I</td>
<td>3 Units</td>
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<td>Degree Appropriate, CSU</td>
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<tr>
<td>FASH 22</td>
<td>Fashion Design By Draping</td>
<td>3 Units</td>
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<td>Degree Appropriate, CSU</td>
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<td>Intermediate pattern drafting and flat patternmaking, with the introduction to the sizing of patterns/grading. Development of patternmaking skills to include two-way stretch knits, swimwear, and complex construction. Students apply commercial manufacturing standards in producing size ranges for misses' and women's wear, to include skirts, pants, bodices, sleeves and collars. Students who repeat this course will improve skills through further instruction and practice.</td>
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<tr>
<td>FASH 23</td>
<td>Patternmaking II</td>
<td>3 Units</td>
<td></td>
<td>Degree Appropriate, CSU</td>
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<td>Three dimensional dress design through draping fabrics directly to a dress form to create original designs or to interpret fashion illustrations.</td>
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<tr>
<td>FASH 24</td>
<td>Fashion Patternmaking by Computer</td>
<td>3 Units</td>
<td>(May be taken two times for credit.)</td>
<td>Degree Appropriate</td>
<td>36 hours lecture. 54 hours lab.</td>
<td>Advisory: FASH 20 Study of the applications of Computer Aided Design (CAD) patternmaking and grading for the fashion industry. Exploration of drawing techniques, pattern development, flat pattern manipulation and the sizing/grading of patterns. Students who repeat this course will improve skills through further instruction and practice.</td>
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<tr>
<td>FASH 25</td>
<td>Fashion Computer-Assisted Drawing</td>
<td>3 Units</td>
<td>(May be taken two times for credit.)</td>
<td>Degree Appropriate</td>
<td>36 hours lecture. 54 hours lab.</td>
<td>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. Students who repeat this course will improve skills through further instruction and practice.</td>
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<tr>
<td>Course Code</td>
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<td>Units</td>
<td>Description</td>
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<tr>
<td>FASH 26</td>
<td>Fashion Computer Assisted Design</td>
<td>2 Units</td>
<td>Degree Appropriate, CSU 18 hours lecture. Use an advanced, industry-specific CAD system to produce high-level graphic presentations. Create color palettes, textiles, and surface designs; explore texture mapping and how it is used to create a natural drape on the fashion figure; and use the computer as a layout design tool for swatches and vector flatdrawings. Students who repeat this course will improve skills through further instruction and practice.</td>
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<tr>
<td>FASH 30</td>
<td>Fashion Design and Product Development I</td>
<td>3 Units</td>
<td>Degree Appropriate, CSU 54 hours lecture. Advisory: FASH 15 and FASH 60 Overview of the global environment for product development for fashion. Applies the concepts and methods by which retailers create special store-branded merchandise for targeted customer segments. Students will develop financial and design goals, create product concept and line-boards, and evaluate the aesthetic and commercial results.</td>
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<tr>
<td>FASH 31</td>
<td>Fashion Design and Product Development II</td>
<td>3 Units</td>
<td>Degree Appropriate, CSU 54 hours lecture. Prerequisite: FASH 20, FASH 21 or 22, AND FASH 30 Intermediate fashion students will create and maintain a personal design sketchbook and work with the basic categories of swim wear, active wear, children's and junior clothing. Industrial techniques of drawing production flats and design room sketches are taught in addition to the full fashion figure. Projects will include creation of lines including production flats, textile selection, cost sheets, full-color illustrations and full scale patterns.</td>
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<tr>
<td>FASH 32</td>
<td>Fashion Design and Product Development III</td>
<td>3 Units</td>
<td>Degree Appropriate, CSU 54 hours lecture. 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 résumé preparation and job search appropriate for the fashion design industry.</td>
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<tr>
<td>FASH 62</td>
<td>Retail Store Management and Merchandising</td>
<td>3 Units</td>
<td>Degree Appropriate, 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>
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<tr>
<td>FASH 63</td>
<td>Advertising and Promotion</td>
<td>3 Units</td>
<td>Degree Appropriate, 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 FASH 63 and BUSS 33.</td>
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<tr>
<td>FASH 66</td>
<td>Visual Merchandising Display</td>
<td>3 Units</td>
<td>Degree Appropriate, CSU 36 hours lecture. Analysis of visual merchandising applied to interior and exterior displays and floor merchandising within the fashion industry. Includes psychology of store layout, current methods of visual merchandising, and use of mannequins, pinning, and flying.</td>
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<tr>
<td>FASH 81</td>
<td>Work Experience in Fashion</td>
<td>1 Unit</td>
<td>Degree Appropriate, CSU 75 hours lab. Provides fashion students with actual on-the-job experience in an approved work site which is related to classroom-based learning. A minimum of 75 paid clock hours or 60 non-paid clock hours per semester is required for each one unit of credit. Students who repeat this course will improve skills through further instruction and practice.</td>
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<tr>
<td>FASH 82</td>
<td>Work Experience in Fashion</td>
<td>2 Units</td>
<td>Degree Appropriate, CSU 150 hours lab. Provides fashion students with actual on-the-job experience in an approved work site which is related to classroom-based learning. A minimum of 75 paid clock hours or 60 non-paid clock hours per semester is required for each one unit of credit. Students who repeat this course will improve skills through further instruction and practice.</td>
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<tr>
<td>FASH 83</td>
<td>Work Experience in Fashion</td>
<td>3 Units</td>
<td>Degree Appropriate, CSU 225 hours lab. Provides fashion students with actual on-the-job experience in an approved work site which is related to classroom-based learning. A minimum of 75 paid clock hours or 60 non-paid clock hours per semester is required for each one unit of credit. Students who repeat this course will improve skills through further instruction and practice.</td>
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<tr>
<td>FASH 90</td>
<td>Field Studies</td>
<td>1 Unit</td>
<td>Degree Appropriate, CSU 18 hours lecture. Pre-trip lectures on the development of the ready-to-wear industry including background information on specific designer studios, factories, and retail stores to be visited, plus travel information for the trip. Students who repeat this course will improve skills through further instruction and practice.</td>
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<tr>
<td>FASH 90T</td>
<td>Topics in Fashion Design: Corset Making</td>
<td>2 Units</td>
<td>Degree Appropriate, CSU (May be taken four times for credit.) 18 hours lecture. Provides corset making design experience to supplement regular program opportunities for students to pursue more advanced projects. Students who repeat this course will improve skills through further instruction and practice.</td>
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<tr>
<td>FASH 91</td>
<td>Field Studies — New York</td>
<td>2 Units</td>
<td>Degree Appropriate, CSU 36 hours lecture. Corequisite: FASH 90 (May have been taken previously) Fashion industry travel study in New York City with daily scheduled lectures and field studies of the diverse fashion industries to include major designers, fashion trend services, retailers, manufacturers, costume/textile exhibits and archives, and museums. Students who repeat this course will improve skills through further instruction and practice.</td>
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<tr>
<td>FASH 92</td>
<td>Field Studies — Fashion Capitals</td>
<td>3 Units</td>
<td>Degree Appropriate, CSU 54 hours lecture. Corequisite: FASH 90 (May have been taken previously) Fashion industry travel study in fashion capitals with daily scheduled lectures and field studies of the diverse international industry to include major designers, fashion trend services, retailers, manufacturers, costume/textile exhibits and archives, and museums. Students who repeat this course will improve skills through further instruction and practice.</td>
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<tr>
<td>FIRE 1</td>
<td>Fire Protection Organization</td>
<td>3 Units</td>
<td>Degree Appropriate, CSU 54 hours lecture. Career options and opportunities in fire protection and related fields; history of fire protection, fire loss analysis, public, quasi-public and private fire protection services; specific fire protection functions; fire chemistry and physics.</td>
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<tr>
<td>FIRE 2</td>
<td>Fire Prevention Technology</td>
<td>3 Units</td>
<td>Degree Appropriate, CSU 54 hours lecture. Introduction and history of fire prevention, including codes, ID and correction of hazards, investigation, and safety education.</td>
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<tr>
<td>FIRE 3</td>
<td>Fire Protection Equipment and Systems</td>
<td>3 Units</td>
<td>Degree Appropriate, CSU 54 hours lecture. Advisory: FIRE 1 Includes the study of portable fire extinguishing equipment, sprinkler systems, protection systems for special hazards, fire alarm and detection systems, design and operation of sprinkler systems, water supply and fire extinguishers.</td>
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</table>
### Course Descriptions

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Lecture Hours</th>
<th>Degree Appropriate</th>
<th>Advisory Notes</th>
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</thead>
<tbody>
<tr>
<td>FIRE 4</td>
<td>Building Construction for Fire Protection</td>
<td>3</td>
<td>54</td>
<td>Degree Appropriate, CSU</td>
<td>FIRE 1</td>
</tr>
<tr>
<td>FIRE 5</td>
<td>Fire Behavior and Combustion</td>
<td>3</td>
<td>54</td>
<td>Degree Appropriate, CSU</td>
<td>FIRE 1</td>
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<tr>
<td>FIRE 6</td>
<td>Hazardous Materials/ICS</td>
<td>3</td>
<td>54</td>
<td>Degree Appropriate, CSU</td>
<td>FIRE 1</td>
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<tr>
<td>FIRE 7</td>
<td>Fire Fighting Tactics and Strategy</td>
<td>3</td>
<td>54</td>
<td>Degree Appropriate, CSU</td>
<td>FIRE 1</td>
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<tr>
<td>FIRE 8</td>
<td>Fire Company Organization and Management</td>
<td>3</td>
<td>54</td>
<td>Degree Appropriate, CSU</td>
<td>FIRE 1</td>
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<tr>
<td>FIRE 9</td>
<td>Fire Hydraulics</td>
<td>3</td>
<td>54</td>
<td>Degree Appropriate, CSU</td>
<td>FIRE 1</td>
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<tr>
<td>FIRE 10</td>
<td>Arson and Fire Investigation</td>
<td>3</td>
<td>54</td>
<td>Degree Appropriate, CSU</td>
<td>FIRE 1</td>
</tr>
<tr>
<td>FIRE 11</td>
<td>Fire Apparatus and Equipment</td>
<td>3</td>
<td>54</td>
<td>Degree Appropriate, CSU</td>
<td>FIRE 1</td>
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<tr>
<td>FIRE 12</td>
<td>Wildland Fire Control</td>
<td>4</td>
<td>80</td>
<td>Degree Appropriate, CSU</td>
<td>Eligibility for ENGL 68</td>
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<tr>
<td>FIRE 20</td>
<td>Fire Instructor 1A</td>
<td>2</td>
<td>40</td>
<td>Degree Appropriate, CSU</td>
<td>FIRE 86 or equivalent taken prior</td>
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<tr>
<td>FIRE 21</td>
<td>Fire Instructor 1B</td>
<td>2</td>
<td>40</td>
<td>Degree Appropriate, CSU</td>
<td>FIRE 20 or equivalent taken prior</td>
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<tr>
<td>FIRE 22</td>
<td>Fire Instructor 2A</td>
<td>2</td>
<td>40</td>
<td>Degree Appropriate, CSU</td>
<td>FIRE 21 or equivalent taken prior</td>
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<tr>
<td>FIRE 23</td>
<td>Fire Instructor 2B</td>
<td>2</td>
<td>40</td>
<td>Degree Appropriate, CSU</td>
<td>FIRE 21 or equivalent taken prior</td>
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<tr>
<td>FIRE 24</td>
<td>Fire Instructor 2C</td>
<td>2</td>
<td>40</td>
<td>Degree Appropriate, CSU</td>
<td>FIRE 21 or equivalent taken prior</td>
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<tr>
<td>FIRE 30</td>
<td>Fire Management 1</td>
<td>2</td>
<td>40</td>
<td>Degree Appropriate, CSU</td>
<td>FIRE 30 taken prior</td>
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<tr>
<td>FIRE 31</td>
<td>Fire Management 2A – Organizational Development and Human Relations</td>
<td>2</td>
<td>40</td>
<td>Degree Appropriate, CSU</td>
<td>FIRE 8 or FIRE 86 or equivalent taken prior</td>
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<tr>
<td>FIRE 32</td>
<td>Fire Management 2B – Fire Service Financial in the Fire Service</td>
<td>2</td>
<td>40</td>
<td>Degree Appropriate, CSU</td>
<td>FIRE 30</td>
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<tr>
<td>FIRE 33</td>
<td>Fire Management 2D – Master Planning in the Fire Service</td>
<td>2</td>
<td>40</td>
<td>Degree Appropriate, CSU</td>
<td>FIRE 31</td>
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<tr>
<td>FIRE 34</td>
<td>Fire Management 2E – Personnel and Labor</td>
<td>2</td>
<td>40</td>
<td>Degree Appropriate, CSU</td>
<td>FIRE 31</td>
</tr>
<tr>
<td>Course Code</td>
<td>Course Title</td>
<td>Units</td>
<td>Description and Requirements</td>
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<tr>
<td>FIRE 40</td>
<td>Fire Prevention 1A</td>
<td>2</td>
<td>40 hours lecture. Degree Appropriate. Advisory: FIRE 5, FIRE 86, or equivalent taken prior. First Level I course qualifies the student as a Certified Prevention Officer through the California Fire Service Training and Education System. Includes responsibilities of fire prevention personnel, procedures for correcting hazards, origin and history of fire prevention efforts in the U.S., basic fire prevention functions, occupancy identification, building preparation, record management, exit requirements, electrical hazards, plan review and safety education.</td>
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<tr>
<td>FIRE 41</td>
<td>Fire Prevention 1B</td>
<td>2</td>
<td>40 hours lecture. Degree Appropriate. Advisory: FIRE 40 or equivalent taken prior. Second Level I California Fire Service Training and Education System certified course in fire prevention. Includes relationship of life safety codes and building construction principles, exiting requirements, fire protection systems, basic electrical theory, fire drills and training, fire inspection reports, plans specifications processing, and fire prevention complaints.</td>
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<tr>
<td>FIRE 42</td>
<td>Fire Prevention 1C</td>
<td>2</td>
<td>40 hours lecture. Degree Appropriate. Advisory: FIRE 40 and FIRE 41 or equivalent taken prior. Third Level I California Fire Service Training and Education System certified course in fire prevention. Includes physical properties of flammable and combustible liquids, storage practices, transportation, and controlling of flammable and liquefied gases.</td>
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<tr>
<td>FIRE 43</td>
<td>Fire Prevention 2A</td>
<td>2</td>
<td>40 hours lecture. Degree Appropriate. Advisory: FIRE 40, FIRE 41, FIRE 42 or equivalent taken prior. First Level II California Fire Service Training and Education System certified course in fire prevention for career fire personnel. Includes standards, laws and regulations pertaining to construction requirements for buildings, sprinklers and alarm systems, installation procedures, and requirements associated with fire protection systems.</td>
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<tr>
<td>FIRE 44</td>
<td>Fire Prevention 2B</td>
<td>2</td>
<td>40 hours lecture. Degree Appropriate. Advisory: FIRE 40, FIRE 41, FIRE 42 or equivalent taken prior. Second Level II California Fire Service Training and Education System certified course in fire prevention for fire personnel. Includes interpreting the fire and building codes, California codes of regulation pertaining to fire and life safety standards.</td>
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<tr>
<td>FIRE 50</td>
<td>Fire Command 1A</td>
<td>2</td>
<td>40 hours lecture. Degree Appropriate. Advisory: FIRE 7, FIRE 86 taken prior. Level I California Fire Service Training and Education System certified course designed for first-in incident commander and company officers. Includes command principles for company officers, initial decision and action processes at a working fire, fire behavior, firefightingground resources, operations, and management.</td>
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<tr>
<td>FIRE 51</td>
<td>Fire Command 1B</td>
<td>2</td>
<td>40 hours lecture. Degree Appropriate. Advisory: FIRE 50 or equivalent taken prior. Level I California Fire Service Training and Education System certified course designed for first-in incident commander and company officers. Provides incident management information on tactics, strategies, and scene management for multi-casualty incidents, hazardous materials incidents, and wildland fires.</td>
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<tr>
<td>FIRE 52</td>
<td>Fire Command 2A – Command Tactics at Major Fires</td>
<td>2</td>
<td>40 hours lecture. Non-Degree Credit. Advisory: FIRE 51. For fire officers managing fires using the Incident Command System (ICS) when commanding multiple alarms. Includes unified command structures and areas of geographical divisions.</td>
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<tr>
<td>FIRE 53</td>
<td>Fire Command 2B – Management of Major Hazardous Material Incidents</td>
<td>2</td>
<td>40 hours lecture. Degree Appropriate. Advisory: FIRE 51. For fire officers responsible for hazardous material responses. Includes community planning, research, legislation enforcement and litigation from hazardous material responses.</td>
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<tr>
<td>FIRE 55</td>
<td>Fire Command 2D – Disaster Planning and Management</td>
<td>2</td>
<td>40 hours lecture. Degree Appropriate. Advisory: FIRE 51 taken prior. Level II California Fire Service Training and Education System chief officer certified course for supervisory and managerial fire service personnel responsible for emergency disaster planning and implementing the Standard Emergency Management System, emphasizing the integrated team approach to managing emergencies.</td>
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<tr>
<td>FIRE 56</td>
<td>Fire Command 2E – Wildland Fire Control</td>
<td>2</td>
<td>40 hours lecture. Degree Appropriate. Advisory: FIRE 51. For supervisory and managerial fire service personnel responsible for management and coordination of an extended wildland fire incident.</td>
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<tr>
<td>FIRE 60</td>
<td>Fire Investigation 1A</td>
<td>2</td>
<td>40 hours lecture. Degree Appropriate. Advisory: FIRE 10, FIRE 86, or equivalent taken prior. Level I California Fire Service Training and Education System certified course designed for firefighters and investigation personnel. Includes juvenile fire setter, report writing, evidence preservation and collection, interview techniques, motives and fatalities.</td>
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<tr>
<td>FIRE 61</td>
<td>Fire Investigation 1B</td>
<td>2</td>
<td>40 hours lecture. Degree Appropriate. Advisory: FIRE 60 or equivalent taken prior. Level I California Fire Service Training and Education System certified course designed for firefighters and investigation personnel. Includes juvenile fire setter, report writing, evidence preservation and collection, interview techniques, motives and fatalities.</td>
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<tr>
<td>FIRE 62</td>
<td>Fire Investigation 2A – Fire Cause Determination 1</td>
<td>2</td>
<td>40 hours lecture. Non-Degree Credit. 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.</td>
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<tr>
<td>FIRE 66</td>
<td>Title 19/24 Workshop</td>
<td>1</td>
<td>(May be taken for Credit/No Credit only.) Degree Appropriate. Advisory: FIRE 40 or equivalent taken prior. California Fire Service Training and Education System certified accredited course in fire prevention for fire personnel. Includes standards required for understanding, interpreting and applying State Fire Marshall's Regulation requirements based on type of occupancy, construction, fire extinguishing systems, exits, alarm systems and institutional occupancies.</td>
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</table>
COURSE DESCRIPTIONS

FIRE 85 — Special Issues in Fire Technology 2 Units
(May be taken four times for credit.) Degree Appropriate
(May be taken for Credit/No Credit only.)
36 hours lecture.
Develops knowledge and techniques to enable fire service employees to understand and handle the special problems that arise in various phases of the fire science. Special emphasis will be placed on a particular problem as the need arises. Students who repeat this course will improve skills through further instruction and practice.

FIRE 86 — Basic Fire Academy 12 Units
138 hours lecture. Degree Appropriate
382 hours lab.
Prerequisite: FIRE 1 through FIRE 6 or equivalent, EMT certified, and either PE-F 50 or PE-F 51 or PE-F 52 (or equivalent)
Corequisite: PE-F 53
Instructor in the proper use of standard fire department apparatus and equipment, salvage covers and fire extinguishment techniques, etc., in accordance with the State Board of Fire Services. Prepares students to meet manipulative skills standards established by the local fire agencies, associations and unions.

FIRE 88 — Explorer Fire Academy 2 Units
Spring Semester Non-Degree Credit
(May be taken for Credit/No Credit only.)
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.

FIRE 89 — Firefighter Exam Preparation .5 Unit
(May be taken four times for credit.) Non-Degree Credit
(May be taken for Credit/No Credit only.)
8 hours lecture.
Prepares applicants for entry-level firefighter positions for the CWH Research, Inc. Firefighter Exam, offered in conjunction with the Los Angeles Area Fire Chief's Association. Two four-hour sessions including administration of written examination.

FIRE 91 — Fire Academy Ladders 1 Unit
Summer Semester Non-Degree Credit
(May be taken for Credit/No Credit only.)
8 hours lecture.
32 hours lab.
Intensive training in ladder manipulation to prepare students for Fire Academy and physical fitness tests given by the fire departments.

FIRE 96 — Work Experience Fire Science 2 Units
(May be taken four times for credit.) Degree Appropriate
(May be taken for Credit/No Credit only.)
150 hours activity.
Prerequisite: Compliance with Work Experience regulations as designated in the College Catalog
Work experience in fire service at an approved work site which is related to classroom instruction. A minimum of 75 paid or 60 non-paid clock hours per semester of supervised work is required for each unit of credit. It is recommended that the hours per week be equally distributed throughout the semester. This course is available to students achieving a minimum of 12 units in fire service. Students who repeat this course will improve skills through further instruction and practice.

FRENCH

FRCH 1 — Elementary French 4 Units
Prerequisite: FRCH 1 or equivalent
(CAN FREN 1) Degree Appropriate, CSU, UC
72 hours lecture.
54 hours lab.
Intended for students without previous exposure to French. Begins to develop the ability to converse, read and write in French. Emphasis is on pronunciation, basic vocabulary and grammatical structures. Extensive exposure to the cultures of French-speaking countries.

FRCH 2 — Continuing Elementary French 4 Units
(CAN FREN 2) Degree Appropriate, CSU, UC
72 hours lecture.
Prerequisite: FRCH 1 or two years of high school French or equivalent
Further development of conversational, reading and writing skills in French, with emphasis on communicative skills, expansion of vocabulary and understanding of structure. Extensive exploration and analysis of the cultures of French-speaking countries.

FRCH 3 — Intermediate French 4 Units
(CAN FREN 8) Degree Appropriate, CSU, UC
FRCH 3+4 = CAN FREN SEQ B
72 hours lecture.
Prerequisite: FRCH 2 or equivalent
Expansion of vocabulary and structural components. Further development of communicative proficiency with increasing emphasis on reading and writing. Extensive exposure to culture from France and other French-speaking countries.

FRCH 4 — Continuing Intermediate French 4 Units
(CAN FREN10) Degree Appropriate, CSU, UC
FRCH 3+4 = CAN FREN SEQ B
(May be taken for option of letter grade or Credit/No Credit.)
72 hours lecture.
Prerequisite: FRCH 3 or equivalent
Continued development of competencies with the goal of attaining intermediate high-level proficiency in French. Increasing emphasis on reading and writing. Extensive exposure to cultural elements such as art, music, film, and history from France and other French-speaking countries.

FRCH 5 — Advanced French 4 Units
(May be taken for option of letter grade or Credit/No Credit.)
72 hours lecture.
Prerequisite: FRCH 4 or equivalent
Provides further insight into the cultures of France and other French-speaking countries to reach an advanced level of proficiency in the language. Includes analysis of short literary works from diverse cultures, and group discussions about contemporary topics found in films and newspaper articles.

FRCH 6 — Continuing Advanced French 4 Units
(May be taken for option of letter grade or Credit/No Credit.)
72 hours lecture.
Prerequisite: FRCH 5 or equivalent
Extensive reading and analysis of short literary works from diverse French and French-speaking cultures. Discussion of films, newspaper articles and contemporary topics. Develops fluency in French through group discussions, oral presentations, and writing.

FRCH 35 — French Language Laboratory .5 Unit
(May be taken for option of letter grade or Credit/No Credit only.)
27 hours lab.
An independent study laboratory course for students who wish to improve their skills in French; may supplement any other French course. Requires 24 hours in the language laboratory to receive credit. Students who repeat this course will improve skills through further practice and drill.

FRCH 52 — Conversational French 1 3 Units
(May be taken for option of letter grade or Credit/No Credit.)
54 hours lecture.
Prerequisite: FRCH 1 or equivalent
Development of intermediate French conversational skills. Emphasis on collaborative activities and practical use of the language. Extensive exposure to French culture. Grammar is presented in context.

FRCH 53 — Intermediate Conversational French 3 Units
(May be taken for option of letter grade or Credit/No Credit.)
54 hours lecture.
Prerequisite: FRCH 2 or FRCH 52 or equivalent
Develops intermediate level fluency through expansion of vocabulary and practical use of language.
FRCH 54 — Continuing Intermediate Conversational French 3 Units
(May be taken two times for credit.) Degree Appropriate, CSU, UC
(May be taken for option of letter grade or Credit/No Credit.) 54 hours lecture.
Prerequisite: FRCH 3 or FRCH 53 or equivalent
Develops intermediate-high fluency through further expansion of vocabulary and practical use of language. Students who repeat this course will improve skills through further instruction and practice.

FRCH 60 — French Culture Through Cinema 3 Units
Degree Appropriate, CSU, UC
(May be taken for option of letter grade or Credit/No Credit.) 54 hours lecture.
French culture and history as presented in classic and recent French films. Analysis of characters and political, social and artistic movements in France and other Francophone countries as reflected in the works of French-speaking film directors and writers. Lectures and class discussions conducted in English. All films with English subtitles.

GEOGRAPHY

GEOG 1 — Elements of Physical Geography 3 Units
(CAN GEOG 2) Degree Appropriate, CSU, UC
54 hours lecture.
Prerequisite: Eligibility for ENGL 68
Study of the natural processes that interact to create the Earth's varying physical environments with emphasis on the inter-relationships of natural processes and systems. General atmospheric circulation, Earth-sun relationships, oceanic circulation, water and energy budgets, plate tectonics, and the shaping of the physical landscape.

GEOG 1H — Elements of Physical Geography — Honors 3 Units
54 hours lecture. Degree Appropriate, CSU, UC
Prerequisite: Acceptance into the Honors Program
Study of the natural processes that interact to create the Earth's varying physical environments with emphasis on the inter-relationships of natural processes and systems. General atmospheric circulation, Earth-sun relationships, oceanic circulation, water and energy budgets, plate tectonics, and the shaping of the physical landscape. An honors course designed to provide an enriched experience. Students may not receive credit for both GEOG 1 and GEOG 1H.

GEOG 2 — Human Geography 3 Units
(CAN GEOG 4) Degree Appropriate, 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
54 hours lecture. Degree Appropriate, CSU, UC
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
54 hours lecture. Degree Appropriate, CSU, UC
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
54 hours lecture. Degree Appropriate, CSU, UC
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 Appropriate, CSU, UC
(May be taken for option of letter grade or Credit/No Credit.) 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 1L — Physical Geography Laboratory — Honors 1 Unit
54 hours lab. Degree Appropriate, CSU, UC
Prerequisite: Acceptance into the Honors Program
Corequisite: GEOG 1 or GEOG 1H (May have been taken previously)
Observations, experiments and demonstrations in a laboratory setting to explore natural earth processes and systems. An honors course designed to provide an enriched experience. Students may not receive credit for both GEOG 1L and GEOG 1LH.

GEOG 10 — Introduction to Geographic Information Systems 3 Units
54 hours lecture. Degree Appropriate, CSU, UC
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
Spring Semester Degree Appropriate, CSU, UC
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 1H — Physical Geography Laboratory — Honors 1 Unit
Degree Appropriate, CSU, UC
Corequisite: GEOG 1 or GEOG 1H (May have been taken previously)
Observations, experiments and demonstrations in a laboratory setting to explore natural earth processes and systems. An honors course designed to provide an enriched experience. Students may not receive credit for both GEOG 1L and GEOG 1LH.

GEOG 2H — Human Geography — Honors 3 Units
54 hours lecture. Degree Appropriate, CSU, UC
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 3H — Map Reading and Interpretation Honors 3 Units
54 hours lecture. Degree Appropriate, CSU, UC
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 5H — World Regional Geography Honors 3 Units
54 hours lecture. Degree Appropriate, CSU, UC
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.

GEOL 1 — Physical Geology 4 Units
(CAN GEOG 2) Degree Appropriate, CSU, UC
54 hours lecture.
54 hours lab.
Prerequisite: Eligibility for MATH 51
This beginning course in geology stresses the beneficial and destructive forces of nature and their causes. It includes a study of the development of landscapes, formation of soils, origin of minerals and rocks, geologic work of ground water, the phenomena of earthquake, volcanism, metamorphism, deformation of rocks and other basic concepts of geology important to man's progress and welfare. Field trips required. This is a first course in geology for earth science and geology majors.
COURSE DESCRIPTIONS

GEOL 2 — Historical Geology 4 Units
Spring Semester  Degree Appropriate, CSU, UC (CAN GEOL 4)
54 hours lecture.
54 hours lab.
Prerequisite: GEOL 1 or equivalent
This course traces the sequence of geological events of a developing earth as traced from a primordial beginning to the changes that are occurring now. The interrelationship of the biological and physical processes that are shaping our planet and particularly our evolving and changing continent. Field investigations are required.

GEOL 3 — Paleontology, Life of the Past 4 Units
Degree Appropriate, CSU, UC
May be taken for option of letter grade or Credit/No Credit.
54 hours lecture.
54 hours lab.
An introduction to paleontology including the history of paleontology, methods in paleontology, processes of evolution and the floral and faunal succession through geologic time.

GEOL 6 — Earthquakes 1 Unit
Degree Appropriate, CSU
May be taken for option of letter grade or Credit/No Credit.
18 hours lecture.

GEOL 7 — Geology of California 3 Units
Degree Appropriate, CSU, UC
54 hours lecture.
A survey course in the geological development of the State of California. Evolution of the State's natural provinces and their geologic development as it influences and impacts the adjacent areas. Topics include State resources, volcanic activity, coastline development, tectonic development, earthquakes, and geologic principles. Field trips may be required.

GEOL 8 — Earth Science 3 Units
Degree Appropriate, CSU, UC
54 hours lecture.
An introduction to ways of knowing the earth as a geologic system. The topics covered include the atmosphere, oceans, mountains, and plate tectonics. Field trips are required.

GEOL 8H — Earth Science – Honors 3 Units
Degree Appropriate, CSU, UC
Prerequisite: Acceptance into the Honors Program
An honors course designed to provide an enriched experience. Introduces fundamentals of geology, oceanography, meteorology, and astronomy. The companion Earth Science laboratory (GEOL 8L) is recommended for students needing to complete a degree. Field trips are required. Students may not receive credit for both GEOL 8 and GEOL 8H.

GEOL 8L — Earth Science Laboratory 1 Unit
Lab 54 hours lab.  Degree Appropriate, CSU, UC
Corequisite: GEOL 8 or GEOL 8H (May have been taken previously)
Laboratory applications and problem-solving in geology, oceanography, meteorology, and astronomy. Recommended for students needing a lab to transfer to a 4-year college/university.

GEOL 9 — Environmental Geology 3 Units
Degree Appropriate, CSU, UC
54 hours lecture.
For non-science majors. Relevant aspects of the geologic environment and the problems caused by modern humans as they use the earth and its resources. Geologic hazards, including earthquakes, volcanoes, landslides, floods, subsidence. Emphasis on geologic viewpoints concerning waste disposal, pollution, geothermal energy, fossil fuels, and mining. Geologic practices related to sound land management, conservation of resources, and protection of the environment. Field trips included.

GEOL 10 — Natural Disasters 3 Units
Degree Appropriate, CSU, UC
54 hours lecture.
Surveys the hazards faced by humans from the natural environment. Analyzes a variety of hazards from a geologic perspective. Studies the impact humans have on influencing or exacerbating natural disasters. Includes the role of responding to natural disasters. Field trips included.

GEOL 12A — Natural History of California 3 Units
Degree Appropriate, CSU, UC
Fall Semester (May be taken for option of letter grade or Credit/No Credit.)
36 hours lecture.
54 hours lab.
Field study of the natural history of the Sierra Nevada and adjacent regions. One 3-day and one 4-day weekend field trip will be required. Students may not receive credit for both BIOL 12A and GEOL 12A.

GEOL 12B — Natural History of California 3 Units
Degree Appropriate, CSU, UC
(May be taken for option of letter grade or Credit/No Credit.)
36 hours lecture.
54 hours lab.
Field study of the geology of the Coast Ranges and the San Andreas Fault System.

GEOL 14 — Field Geology, Sierra Nevada 3 Units
Degree Appropriate, CSU
36 hours lecture.
54 hours lab.
Field studies of the Sierra Nevada geologic provinces and the surrounding areas.

GEOL 15 — Field Geology, Mojave Desert 3 Units
Degree Appropriate, CSU
(May be taken for option of letter grade or Credit/No Credit.)
36 hours lecture.
54 hours lab.
Field studies of the geology of the Mojave Desert and surrounding areas.

GEOL 16 — Field Geology, Coast Ranges 3 Units
Degree Appropriate, CSU
(May be taken for option of letter grade or Credit/No Credit.)
36 hours lecture.
54 hours lab.
Field studies of the geology of the Coast Ranges and the San Andreas Fault System.

GEOL 17 — Field Geology, Death Valley 3 Units
Degree Appropriate, CSU
(May be taken for option of letter grade or Credit/No Credit.)
36 hours lecture.
54 hours lab.
Field studies of the geology of Death Valley and the Basin and Range Province.

GEOL 19 — Geology Field Studies 2 Units
Degree Appropriate, CSU
108 hours lecture.
324 hours lab.
Geologic field studies of the Southern California landscape to include the Transverse ranges, Coast Ranges, San Andreas Fault, Great Valley, Sierra Nevada, Owens Valley, and the western Mojave Desert.

GEOL 99 — Special Projects in Geology 2 Units
Degree Appropriate, CSU
In order to offer students the opportunity to explore their disciplines to greater depth, the various departments from time to time offer Special Projects courses. The content of each course and the methods of study vary from semester to semester, and depend on the particular project under consideration. Students must have an instructor's authorization before enrolling in this course. Students repeating this course will make individual contracts of a more advanced nature to ensure that proficiencies are enhanced.
GERMAN

GERM 1 — Elementary German 4 Units
Degree Appropriate, CSU, UC
GERM 1+2 = CAN GERM SEQ A
72 hours lecture.
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.

GERM 2 — Continuing Elementary German 4 Units
Degree Appropriate, CSU, UC
GERM 1+2 = CAN GERM SEQ A
72 hours lecture.
Prerequisite: GERM 1 or two years of high school German or equivalent
Further development of conversational reading and writing skills in German with emphasis on communication skills, expansion of vocabulary, and understanding of structure. Further study of Germanic culture.

GERM 3 — Intermediate German 4 Units
Degree Appropriate, CSU, UC
GERM 3+4 = CAN GERM SEQ B
(May be taken for option of letter grade or Credit/No Credit.)
72 hours lecture.
Prerequisite: GERM 2 or three years of high school German or equivalent
Further development of communicative proficiency in German and exploration of Germanic culture. Further study and review of grammar and expansion of vocabulary. Increasing emphasis on reading and writing in German.

GERM 35 — German Language Laboratory 5 Units
Degree Appropriate, CSU
(May be taken for four times credit.)
(May be taken for Credit/No Credit only.)
27 hours lab.
An independent study laboratory course for students who wish to improve their skills in German. May supplement any current or previous German course. Requires 24 hours using Language Learning Center resources to receive credit. Students who repeat this course will improve their language skills and expand their knowledge of Germanic cultures.

HISTORY

HIST 1 — History of the United States 3 Units
Degree Appropriate, CSU, UC
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.

HIST 3 — History of World Civilization 3 Units
Degree Appropriate, CSU, UC
HIST 3+4 = CAN HIST SEQ C
54 hours lecture.
The rise and development of civilization from the Stone Age to 1500.

HIST 3H — History of World Civilization — Honors 3 Units
Degree Appropriate, CSU, UC
HIST 3H+4H = CAN HIST SEQ C
54 hours lecture.
Prerequisite: Acceptance into the Honors Program
The rise and development of civilization from the Stone Age to 1500. An honors course designed to provide an enriched experience. Students may not receive credit for both HIST 3 and HIST 3H.

HIST 4 — History of World Civilization 3 Units
Degree Appropriate, CSU, UC
HIST 3+4 = CAN HIST SEQ C
54 hours lecture.
Prerequisite: Eligibility for ENGL 1A
The rise and development of civilization from 1500 to the present.

HIST 4H — History of World Civilization — Honors 3 Units
Degree Appropriate, CSU, UC
HIST 3H+4H = CAN HIST SEQ C
54 hours lecture.
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.

HIST 7 — History of the United States 3 Units
Degree Appropriate, CSU, UC
HIST 7+8 = CAN HIST SEQ B
54 hours lecture.
Prerequisite: Eligibility for ENGL 1A
Survey of American history from Native American origins through post-Civil War Reconstruction with an encompassing approach to the United States and its major ethnic and social groups. Explores the influence of the geography and environment of North America and the ethnic, social, and religious complexity of the population. Also examines political, philosophical, and intellectual influences on the founding fathers, American political institutions, and the citizens of the country.

HIST 7H — History of the United States — Honors 3 Units
Degree Appropriate, CSU, UC
Prerequisite: Acceptance into the Honors Program
Survey of American history from Native American origins through post-Civil War Reconstruction with an encompassing approach to the United States and its major ethnic and social groups. Explores the influence of the geography and environment of North America and the ethnic, social, and religious complexity of the population. Also examines political, philosophical, and intellectual influences on the founding fathers, American political institutions, and the citizens of the country.

HIST 8 — History of the United States 3 Units
Degree Appropriate, CSU, UC
HIST 7+8 = CAN HIST SEQ B
54 hours lecture.
Prerequisite: Eligibility for ENGL 1A
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.

HIST 8H — History of the United States — Honors 3 Units
Degree Appropriate, CSU, UC
HIST 7H+8H = CAN HIST SEQ B
54 hours lecture.
Prerequisite: Acceptance into the Honors Program
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.

HIST 10 — History of Asia 3 Units
Degree Appropriate, CSU
HIST 10+11 = CAN HIST SEQ C
54 hours lecture.
Survey history of China, Japan, India, South Asia, and Southeast Asia from the pre-historical era to 1600. Topics include: oriental mysticism and religions, art and literature, warfare and political systems, the splendor of the imperial courts and the lives of the peasants.

HIST 11 — History of Asia 3 Units
Degree Appropriate, CSU
HIST 10+11 = CAN HIST SEQ C
54 hours lecture.
Survey history of China, Japan, Southeast Asia, India, and South Asia from 1600 to the 20th century. Emphasizes the confrontation between Asia and the Western world. Topics include: economic and political systems, religion and art, the splendor of the courts, peasant life and the civil and international wars.
### Course Descriptions

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Description</th>
<th>Prerequisites</th>
<th>Hours Lecture</th>
<th>Degree Appropriate, CSU, UC</th>
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<tbody>
<tr>
<td>HIST 16</td>
<td>The Wild West – A History, 1800-1890</td>
<td>3</td>
<td>Degree Appropriate, CSU, UC (May be taken for option of letter grade or Credit/No Credit.)</td>
<td>Degree Appropriate, CSU, UC 54 hours lecture.</td>
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<tr>
<td></td>
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<td>Surveys the history of the Trans-Mississippi West to acquaint students with the historical significance, events and personalities which make up 19th Century American history.</td>
<td>Pre requisite: Eligibility for ENGL 68</td>
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<tr>
<td>HIST 19</td>
<td>History of Mexico</td>
<td>3</td>
<td>Degree Appropriate, CSU, UC The cultural and social history of the Mexican people from pre-Colombian civilization to modern Mexico.</td>
<td>Degree Appropriate, CSU, UC 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 Appropriate, CSU, UC In the general framework of the U.S. historical process, surveys the history of African Americans from the African genesis to 1865, including historical processes and their impact on modern U.S. society. A critical analysis will be made of the contributions of African Americans to the historical development of the United States, and the transformations that have occurred as a result. Satisfies the requirement for a course in American institutions and ideals and the Constitution of the United States as required by Title 5 of the California Administrative Code.</td>
<td>Degree Appropriate, CSU, UC 54 hours lecture.</td>
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<tr>
<td>HIST 31</td>
<td>History of the African American</td>
<td>3</td>
<td>Degree Appropriate, CSU, UC In the general framework of the U.S. historical process, surveys the history of African Americans from the Reconstruction period to the present, including historical processes and their impact on modern U.S. society. A critical analysis will be made of the contributions of African Americans to the historical development of the United States, and the transformations that have occurred as a result. Satisfies the requirement for a course in American institutions and ideals and the Constitution of the United States as required by Title 5 of the California Administrative Code.</td>
<td>Degree Appropriate, CSU, UC 54 hours lecture.</td>
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<tr>
<td>HIST 35</td>
<td>History of Africa</td>
<td>3</td>
<td>Degree Appropriate, CSU, UC (May be taken for option of letter grade or Credit/No Credit.)</td>
<td>Degree Appropriate, CSU, UC 54 hours lecture.</td>
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<td>Surveys African civilization with major emphasis placed upon political, social and cultural developments. African history will be traced from prehistoric times through colonialism and the emergence of independent African states in the 20th century. The American relationship with Africa will be considered.</td>
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<tr>
<td>HIST 36</td>
<td>Women in American History – Beyond the Stereotypes</td>
<td>3</td>
<td>Degree Appropriate, CSU, UC An introductory course placing women’s experience within the context of the major themes of American history, addressing issues and debates related to gender construction and identity. Political, economic, and social currents as well as cross cultural dynamics are critically examined and analyzed as gender theory and practices in the context of ethnicity, class, and nation. This course satisfies the requirement for a course in American history including the study of American institutions and ideals, as required by Title 5 of the California Administrative Code.</td>
<td>Degree Appropriate, CSU, UC 54 hours lecture.</td>
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<tr>
<td>HIST 39</td>
<td>California History</td>
<td>3</td>
<td>Degree Appropriate, CSU, UC The social, intellectual, economic and political development of California from earliest times to the present, against the background of Latin America, the Pacific and the United States.</td>
<td>Degree Appropriate, CSU, UC 54 hours lecture.</td>
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<tr>
<td>HIST 40</td>
<td>History of the Mexican American</td>
<td>3</td>
<td>Degree Appropriate, CSU, UC A survey of United States history from colonial times to the present with a special emphasis on the role of La Raza (Hispanics) in the development of the nation. Satisfies the requirement for a course in American History, including the study of American institutions and ideals as required by Title 5 of the California Administrative Code.</td>
<td>Degree Appropriate, CSU, UC 54 hours lecture.</td>
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<tr>
<td>HIST 44</td>
<td>History of Native Americans</td>
<td>3</td>
<td>Degree Appropriate, CSU, UC Defines all aspects of general laboratory issues including general laboratory protocols (GLP’s), safety, ethics, and terminology relative to the preparation of tissue samples.</td>
<td>Degree Appropriate, CSU, UC 54 hours lecture.</td>
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</tr>
<tr>
<td>HIST 99</td>
<td>Special Projects in History</td>
<td>2</td>
<td>Degree Appropriate, CSU, UC To offer selected students recognition for their academic interests and ability and the opportunity to explore their disciplines to a greater depth, the various departments from time-to-time offer Special Projects courses. The content of each course and the methods of study vary from semester to semester and depend on the particular project under consideration. Students repeating this course will make individual contracts of a more advanced nature with the instructor to ensure that proficiencies are enhanced.</td>
<td>Degree Appropriate, CSU, UC 36 hours lecture.</td>
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</table>

### HISTOTECNOLOGY

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Description</th>
<th>Prerequisites</th>
<th>Hours Lecture</th>
<th>Degree Appropriate, CSU, UC</th>
</tr>
</thead>
<tbody>
<tr>
<td>HT 1</td>
<td>Introduction to Histotechnology</td>
<td>1</td>
<td>Degree Appropriate</td>
<td>Advisory: Eligibility for ENGL 68</td>
<td>18 hours lecture.</td>
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<tr>
<td>HT 2</td>
<td>Scientific Basics for Histologic Technicians</td>
<td>3</td>
<td>Degree Appropriate</td>
<td>Advisory: Eligibility for ENGL 68</td>
<td>54 hours lecture.</td>
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<tr>
<td>HT 10</td>
<td>Histology</td>
<td>3</td>
<td>Degree Appropriate</td>
<td>Degree Appropriate</td>
<td>36 hours lecture.</td>
<td></td>
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<tr>
<td>HT 12</td>
<td>Beginning Histotechniques</td>
<td>5</td>
<td>Degree Appropriate</td>
<td>Degree Appropriate</td>
<td>54 hours lecture.</td>
<td></td>
</tr>
<tr>
<td>HT 17</td>
<td>Work Experience in Histotechnology</td>
<td>1</td>
<td>Degree Appropriate</td>
<td>Degree Appropriate</td>
<td>75 hours lab.</td>
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</tbody>
</table>

Provided histotechnology students with actual on-the-job experience in an approved work setting which is related to classroom instruction. A minimum of 60 non-paid clock hours per semester of supervised work is required for each unit of credit. It is recommended that the hours per week be equally distributed throughout the semester. Students who repeat this course will improve skills through further instruction and practice. Placement by Program Director.
HRM 51 — Introduction to Hospitality 3 Units
54 hours lecture. Degree Appropriate, CSU
Prerequisite: Eligibility for ENGL 68
Brief review of the historical development of the hospitality industry; social and economic influences on the current leisure industry structures. Career opportunities at various levels in hotels, restaurants, food service institutions and private clubs/resorts. Education and experience requirements, personal qualifications, job responsibilities, job procurement and future opportunities.

HRM 52 — Food Safety and Sanitation 1.5 Units
27 hours lecture. Degree Appropriate, CSU
Prerequisite: Eligibility for ENGL 68
Basic principles of sanitation and safety in the food service industry. Emphasis on the role of management in design, implementation and training to establish an effective Hazard Analysis Critical Control Point (HACCP) system. Students will have the opportunity to earn the National Restaurant Association’s ServSafe Certificate upon completion of the course.

HRM 53 — Dining Room Service Management 3 Units
54 hours lecture. Degree Appropriate, CSU
Advisory: ENGL 68
Skills and knowledge needed for all aspects of dining room service. Exploration of the five different service styles and their relationship to various environments. Table setting styles, buffet set-ups, wine and beverage service, and service as a sales tool are covered. Safety of both customer and staff are discussed.

HRM 54 — Basic Cooking Techniques 3 Units
54 hours lab. Degree Appropriate, CSU
Advisory: HRM 52
Basic principles of preparing foods for commercial operations; the use and identification of commercial tools and equipment; extending recipes; and choosing the proper food grade; evaluation of food products, and equipment usage.

HRM 55 — Hospitality Layout and Design 3 Units
54 hours lecture. Degree Appropriate, CSU
Corequisite: HRM 51 (May have been taken previously)
Evaluation and application of basic principles of design for food service businesses, including traffic flow and footprint layouts. Students will study successful operations layouts and apply principles to design a business, and choose appropriate furnishings and equipment to compliment theme and fit budgets.

HRM 56 — Management of Hospitality Personnel and Operations 3 Units
54 hours lecture. Degree Appropriate, CSU
Management skills course for students pursuing a career in supervision within the restaurant/hospitality industry. Application of basic management concepts and techniques necessary to achieve objectives in the management of operations and human resources in restaurant and hospitality businesses including analysis of hospitality workplace; the manager's responsibilities in training, coaching, and performance appraisal of employees; decision making, leadership, and planning.

HRM 57 — Restaurant Cost Control 3 Units
54 hours lecture. Degree Appropriate, CSU
Corequisite: HRM 51 (May have been taken previously)
Methods for controlling resources within the hospitality operation to maximize profits without compromising products. Discusses controls in front of the house, back of the house, purchasing and receiving.

HRM 58 — Fast Food Service Management 2 Units
36 hours lecture. Degree Appropriate, CSU
Corequisite: HRM 91
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.

HRM 60 — Purchasing for the Restaurant Industry 3 Units
54 hours lecture. Degree Appropriate, CSU
Corequisite: HRM 51 (May have been taken previously)
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.

HRM 61 — Menu Planning 3 Units
54 hours lecture. Degree Appropriate, CSU
Advisory: HRM 51
Menu development for all facets of the food service industry including retail and contract operations; emphasis on the economics of the menu and the demographics of the area. Analysis of menus with regard to limitations of the facility and staff, pricing and menu design relative to the economy and culture of the target area. Specialty menus such as ethnic, fast food, catering and various contract situations are included.

HRM 62 — Catering 3 Units
54 hours lecture. Degree Appropriate, CSU
Corequisite: HRM 51
Comprehensive exploration of the catering business with in-depth study of organizing and creating both on-premise and off-premise events. Marketing and working with clients to combine menu with price. Contracting outside vendors, problem solving and avoiding common problems before they occur.

HRM 63 — Wines and Spirits 3 Units
54 hours lecture. Degree Appropriate, CSU
In-depth coverage of different varieties and types of wines, classification, and wine production, including sparkling, aromatic and fortified wines. Types of beer and methods of production and distillation and fermentation of spirits. Issues of responsible alcoholic beverage service and consumption, and the laws governing alcohol sales are covered. STUDENTS MUST BE A MINIMUM OF 21 YEARS OLD TO ENROLL IN THIS COURSE.

HRM 64 — Hospitality Financial Accounting I 3 Units
54 hours lecture. Degree Appropriate, CSU
Prerequisite: BUSA 11 or MATH 51
Introduction to financial accounting specifically for the hospitality business. Emphasis is on tailoring the Uniform System of Accounting to hotels, restaurants, clubs and other food service operations.
HRM 65 — Hospitality Financial Accounting II 3 Units
54 hours lecture. Degree Appropriate, CSU
Prerequisite: HRM 64
Financial accounting specifically for the hospitality industry. Provides accounting practices for balance sheet and income statement data related to hotels, restaurants, clubs and other food service operations. Enables students to distinguish between accounting for sole proprietorships, partnerships and corporations.

HRM 66 — Hospitality Law 3 Units
54 hours lecture. Degree Appropriate, CSU
Advisory: HRM 51
Basic principles of contracts, liability and labor as they apply specifically to the hospitality industry. Students will discuss previous cases and decide the fate of fictional litigations as a preventive approach to problems that can occur.

HRM 70 — Introduction to Lodging 3 Units
54 hours lecture. Degree Appropriate, CSU
Advisory: HRM 91
Introduction to basics of the lodging industry. Acquaints students with front office operations, accounting, guest service, housekeeping and food service. Includes human resource management and property management. Enrollment in Work Experience in Restaurant/Food Service (RSTR 91, 92, 93 or 94) is needed for articulation to California State Polytechnic University.

HRM 91 — Work Experience in Restaurant/Hospitality 1 Unit
(May be taken four times for credit.) Degree Appropriate, CSU
(54 hours lab.)
Prerequisite: Compliance with Work Experience regulations as designated in the College Catalog
Provides students with actual 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 the faculty. Students who repeat this course will improve skills through further instruction and practice.

HRM 92 — Work Experience in Restaurant/Hospitality 2 Units
(May be taken four times for credit.) Degree Appropriate, CSU
(150 hours lab.)
Prerequisite: Compliance with Work Experience regulations as designated in the College Catalog
Provides students with actual 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 the faculty. Students who repeat this course will improve skills through further instruction and practice.

HRM 93 — Work Experience in Restaurant/Hospitality 3 Units
(May be taken four times for credit.) Degree Appropriate, CSU
(225 hours lab.)
Prerequisite: Compliance with Work Experience regulations as designated in the College Catalog
Provides students with actual 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 the faculty. Students who repeat this course will improve skills through further instruction and practice.

HRM 94 — Work Experience in Restaurant/Hospitality 4 Units
(May be taken four times for credit.) Degree Appropriate, CSU
(300 hours lab.)
Prerequisite: Compliance with Work Experience regulations as designated in the College Catalog
Provides students with actual 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 the faculty. Students who repeat this course will improve skills through further instruction and practice.

HUMA 1 — The Humanities 3 Units
54 hours lecture. Degree Appropriate, CSU, UC
Prerequisite: Eligibility for ENGL 68
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.
### Course Descriptions

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Semester</th>
<th>Degree Appropriate</th>
<th>Prerequisites</th>
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<tbody>
<tr>
<td><strong>ID 105</strong></td>
<td>Interior Design Studio I</td>
<td>2</td>
<td>Fall</td>
<td>Degree Appropriate, CSU</td>
<td>18 hours lecture.</td>
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<td>54 hours lab.</td>
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<tr>
<td>Corequisite: ID 100 (May have been taken previously)</td>
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<tr>
<td>Studio course designed to apply concepts and theories presented in the lecture course, ID 100. It is recommended that this course be taken concurrently with the lecture class. Emphasis is placed on design process in developing solutions for design projects.</td>
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<tr>
<td><strong>ID 120</strong></td>
<td>Interior Design Careers</td>
<td>2</td>
<td>Fall</td>
<td>Degree Appropriate, CSU</td>
<td>36 hours lecture.</td>
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<td>54 hours lab.</td>
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<td>Advisory: Eligibility for ENGL 68</td>
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<tr>
<td>A survey of the Interior Design profession, industry, related occupations and work sites. The course will emphasize personal, educational, and professional qualifications required for entry into the Interior Design and related professions.</td>
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<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Semester</th>
<th>Degree Appropriate</th>
<th>Prerequisites</th>
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<tbody>
<tr>
<td><strong>ID 130</strong></td>
<td>Applied Color and Design Theory</td>
<td>4</td>
<td>Fall</td>
<td>Degree Appropriate, CSU</td>
<td>72 hours lecture.</td>
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<td></td>
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<td></td>
<td>54 hours lab.</td>
</tr>
<tr>
<td>Advisory: ID 100</td>
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<tr>
<td>Design theory and application. Utilization of tools, materials, and equipment to develop technical skills applicable to interior architectural and other related fields of design. Exploration of cultural heritage and psychological implications of design.</td>
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<th>Degree Appropriate</th>
<th>Prerequisites</th>
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</thead>
<tbody>
<tr>
<td><strong>ID 150</strong></td>
<td>Interior Materials and Products</td>
<td>4</td>
<td>Fall</td>
<td>Degree Appropriate, CSU</td>
<td>72 hours lecture.</td>
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<tr>
<td></td>
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<td></td>
<td></td>
<td></td>
<td>54 hours lab.</td>
</tr>
<tr>
<td>Advisory: ID 100</td>
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<tr>
<td>Analysis, application, and evaluation of products and materials used in Interior Design. Includes interior textiles, furnishings and finish materials and products.</td>
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<th>Course Code</th>
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<th>Semester</th>
<th>Degree Appropriate</th>
<th>Prerequisites</th>
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</thead>
<tbody>
<tr>
<td><strong>ID 150A</strong></td>
<td>Interior Materials and Products</td>
<td>2</td>
<td>Fall</td>
<td>Degree Appropriate, CSU</td>
<td>36 hours lecture.</td>
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<td></td>
<td></td>
<td>54 hours lab.</td>
</tr>
<tr>
<td>Advisory: ID 100</td>
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</tr>
<tr>
<td>Analysis, application, and evaluation of products and materials used in interior design. Includes textiles, rugs, carpet, upholstered furniture and window treatments.</td>
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<th>Course Code</th>
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<th>Semester</th>
<th>Degree Appropriate</th>
<th>Prerequisites</th>
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<tbody>
<tr>
<td><strong>ID 150B</strong></td>
<td>Interior Materials and Products</td>
<td>2</td>
<td>Fall</td>
<td>Degree Appropriate, CSU</td>
<td>36 hours lecture.</td>
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<td></td>
<td></td>
<td>54 hours lab.</td>
</tr>
<tr>
<td>Advisory: ID 100</td>
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<tr>
<td>Analysis, application and evaluation of products and materials used in interior design. Includes resilient flooring, casegoods, and interior architectural finishing materials.</td>
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<tr>
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<th>Semester</th>
<th>Degree Appropriate</th>
<th>Prerequisites</th>
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<tbody>
<tr>
<td><strong>ID 170</strong></td>
<td>Space Planning</td>
<td>3</td>
<td>Fall</td>
<td>Degree Appropriate, CSU</td>
<td>36 hours lecture.</td>
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<td></td>
<td></td>
<td>54 hours lab.</td>
</tr>
<tr>
<td>Advisory: ID 100 or ID 130 or ARCH 11 or ARCH 21</td>
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<tr>
<td>The application of programming theory and techniques in residential and commercial space planning. Skills in drafting and presentation techniques are emphasized in the studio.</td>
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<tr>
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<th>Degree Appropriate</th>
<th>Prerequisites</th>
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<tbody>
<tr>
<td><strong>ID 180</strong></td>
<td>History of Interior Architecture &amp; Furnishings I</td>
<td>3</td>
<td>Fall</td>
<td>Degree Appropriate, CSU</td>
<td>54 hours lecture.</td>
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<td></td>
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<td></td>
<td>The historical relationship between the decorative arts, period furniture and interior architecture is illustrated in this overview of design heritage from antiquity through the 19th Century in France. Emphasis is placed on style development as it relates to social, economic and political influences.</td>
</tr>
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<tr>
<th>Course Code</th>
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<th>Units</th>
<th>Semester</th>
<th>Degree Appropriate</th>
<th>Prerequisites</th>
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<tbody>
<tr>
<td><strong>ID 190</strong></td>
<td>History of Interior Architecture &amp; Furnishings II</td>
<td>3</td>
<td>Spring</td>
<td>Degree Appropriate, CSU</td>
<td>54 hours lecture.</td>
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<td>Advisory: ID 180 and Eligibility for ENGL 68</td>
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<tr>
<td>The historical relationship between the decorative arts, period furniture and interior architecture is illustrated in this overview of design heritage. This course begins with Sixteenth Century England and America and analyzes the influences and changes in design to the present. Emphasis is placed on style development as it relates to social, economic and political forces.</td>
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<th>Semester</th>
<th>Degree Appropriate</th>
<th>Prerequisites</th>
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</thead>
<tbody>
<tr>
<td><strong>ID 200</strong></td>
<td>Fundamentals of Lighting</td>
<td>3</td>
<td>Fall</td>
<td>Degree Appropriate, CSU</td>
<td>54 hours lecture.</td>
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<td>Advisory: ID 100, ARCH 11, or equivalent experience</td>
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<tr>
<td>The fundamentals of lighting, design, theory and application including the history and vocabulary of lighting; how light affects color and vision, incandescent and fluorescent lamps, lighting techniques for interior designers, codes, and energy efficient lighting practices.</td>
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<th>Semester</th>
<th>Degree Appropriate</th>
<th>Prerequisites</th>
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<tbody>
<tr>
<td><strong>ID 210</strong></td>
<td>Interior Design Studio II</td>
<td>2</td>
<td>Fall</td>
<td>Degree Appropriate, CSU</td>
<td>18 hours lecture.</td>
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<td></td>
<td>54 hours lab.</td>
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<tr>
<td>Prerequisite: ID 105</td>
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<tr>
<td>Develop, analyze and apply design concepts to interior environments. Universal design, ‘green’ design, space planning, lighting systems, interior components, architectural elements and specification writing will be integrated into research projects emphasizing problem solving approach.</td>
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<tbody>
<tr>
<td><strong>ID 215</strong></td>
<td>Business and Professional Practice</td>
<td>3</td>
<td>Fall</td>
<td>Degree Appropriate</td>
<td>54 hours lecture.</td>
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<td>Prerequisite: ID 100</td>
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<tr>
<td>The business and professional management of an interior design practice including legal issues, project management and business practices.</td>
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<th>Semester</th>
<th>Degree Appropriate</th>
<th>Prerequisites</th>
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</thead>
<tbody>
<tr>
<td><strong>ID 240A</strong></td>
<td>Interior Design Internship Seminar</td>
<td>1</td>
<td>Spring</td>
<td>Degree Appropriate</td>
<td>18 hours lecture.</td>
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<td>Corequisite: ID 240B and ID 120 (May have been taken previously)</td>
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<tr>
<td>Advisory: ID 170</td>
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<tr>
<td>Students share and critique experiences, emphasizing professionalism and problem solving techniques related to internship experience (ID 240B). Students who repeat this course will have additional learning experiences by being placed in a different work site.</td>
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<th>Semester</th>
<th>Degree Appropriate</th>
<th>Prerequisites</th>
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<tbody>
<tr>
<td><strong>ID 240B</strong></td>
<td>Interior Design Internship</td>
<td>1</td>
<td>Spring</td>
<td>Degree Appropriate</td>
<td>75 hours lab.</td>
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<td>Corequisite: ID 240A</td>
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<tr>
<td>Supervised internship related to classroom-based learning at a work site related to Interior Design. A minimum of 75 paid or 60 non-paid clock hours per semester of supervised work is required for each unit of credit. It is recommended that the hours per week be equally distributed throughout the semester. Internship placement is not guaranteed, but assistance is provided by Interior Design faculty. Students who repeat this course will improve skills through further instruction and practice.</td>
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<tbody>
<tr>
<td><strong>ID 240C</strong></td>
<td>Interior Design/Kitchen &amp; Bath Internship</td>
<td>2</td>
<td>Fall</td>
<td>Degree Appropriate</td>
<td>150 hours lab.</td>
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<td>Corequisite: ID 240B (May have been taken previously)</td>
</tr>
<tr>
<td>Supervised internship related to classroom-based learning at a National Kitchen and Bath member work site. A minimum of 75 paid or 60 non-paid clock hours per semester of supervised work is required for each unit of credit. It is recommended that the hours per week be equally distributed throughout the semester. Internship placement is not guaranteed, but assistance is provided by Interior Design faculty. Students who repeat this course will improve skills through further instruction and practice.</td>
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<th>Prerequisites</th>
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<tr>
<td><strong>ID 250</strong></td>
<td>Codes and Specifications for Interior Design</td>
<td>2</td>
<td>Fall</td>
<td>Degree Appropriate, CSU</td>
<td>36 hours lecture.</td>
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<td>Advisory: ID 215</td>
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<tr>
<td>Explores local, state, and federal regulations, codes and specifications concerning life-safety issues, ADA, and universal design requirements relative to residential and contract design. Attention is given to performance, health safety, and universal design for estimating and specifying interior materials and products.</td>
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Course Descriptions

ITALIAN

ITAL 1 — Elementary Italian 4 Units
72 hours lecture. Degree Appropriate, CSU, UC
Prerequisite: ITAL 1 or two years of high school Italian or equivalent
Intended for students without previous exposure to Italian. Includes the study of essentials of pronunciation, vocabulary, idioms, and grammatical structures along with an introduction to Italian culture. Begins to develop the ability to converse, read, and write in Italian.

ITAL 2 — Continuing Elementary Italian 4 Units
72 hours lecture. Degree Appropriate, CSU, UC
Prerequisite: ITAL 1 or two years of high school Italian or equivalent
Further development of conversational, reading and writing skills in Italian with special emphasis on verbs, grammar and extension of vocabulary. Further study of Italian culture.

ITAL 3 — Intermediate Italian 4 Units
72 hours lecture. Degree Appropriate, CSU, UC
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
72 hours lecture. Degree Appropriate, CSU, UC
Prerequisite: ITAL 3 or equivalent
Further practice in speaking and writing of intermediate Italian. Collateral reading in Italian. Extensive exposure to cultural elements from Italy such as art, music, film and history.

ITAL 5 — Advanced Italian 4 Units
(May be taken for option of letter grade or Credit/No Credit.)
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
(May be taken for option of letter grade or Credit/No Credit.)
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 35 — Italian Language Laboratory .5 Unit
(May be taken for Credit/No Credit only.)
27 hours lab.
Degree Appropriate, CSU (May be taken four times for credit.)
An independent study laboratory course for students who wish to improve their skills in Italian; may supplement any other Italian course. Requires 24 hours in the language laboratory to receive credit. Students who repeat this course will improve their skills through further instruction and practice.

ITAL 52 — Conversational Italian 3 Units
(May be taken for option of letter grade or Credit/No Credit.)
54 hours lecture.
Prerequisite: ITAL 51 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 54 — Advanced Conversational Italian 3 Units
(May be taken for option of letter grade or Credit/No Credit.)
54 hours lecture.
Prerequisite: 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. Students who repeat this course will improve their skills through further instruction and practice.

ITAL 60 — Italian Culture Through Cinema 3 Units
Degree Appropriate, CSU, UC
(May be taken for option of letter grade or Credit/No Credit.)
54 hours lecture.
Italian culture through cinema from 1900 through analysis of the aesthetic, literary, artistic and philosophical movements in Italy as reflected in the works of the Italian film makers and writers. Lecture and class discussion to be conducted in English; film presentation with English subtitles.

JAPANESE

JAPN 1 — Elementary Japanese 4 Units
(CAN JAPN 1) Degree Appropriate, CSU, UC
72 hours lecture.
Prerequisite: JAPN 1 or two years of high school Japanese
Intended for students without previous exposure to Japanese. Begins to develop the ability to converse, read, and write in Japanese. Includes the study of essentials of pronunciation, vocabulary, idioms, and grammatical structures. Introduction to Japanese culture.

JAPN 2 — Continuing Elementary Japanese 4 Units
(CAN JAPN 2) Degree Appropriate, CSU, UC
72 hours lecture.
Prerequisite: JAPN 1 or two years of high school Japanese
Further development of conversational, reading and writing skills in Japanese with special emphasis on verbs, grammar and extension of vocabulary. Includes a discussion of Japanese culture.

JAPN 3 — Intermediate Japanese 4 Units
(CAN JAPN 3) Degree Appropriate, 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
(CAN JAPN 4) Degree Appropriate, CSU, UC
72 hours lecture.
Prerequisite: JAPN 3 or equivalent
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<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Units</th>
<th>Description</th>
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<tbody>
<tr>
<td>JAPN 5</td>
<td>Advanced Japanese</td>
<td>4</td>
<td>72 hours lecture. Degree Appropriate, CSU, UC.</td>
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<td>Prerequisite: JAPN 4 or equivalent.</td>
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<td>Advisory: Eligibility for ENGL 68</td>
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<td></td>
<td>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 music, film, and history.</td>
</tr>
<tr>
<td>JAPN 35</td>
<td>Japanese Language Laboratory</td>
<td>0.5</td>
<td>(May be taken four times for credit.) Degree Appropriate, CSU. 27 hours lab.</td>
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<td></td>
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<td>Corequisite: Concurrent or previous enrollment in Japanese</td>
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<td>An independent study laboratory course for students who wish to improve their skills in Japanese; may supplement any other Japanese course. Requires 24 hours in the language laboratory to receive credit. Students who repeat this course will improve skills through further practice and drill.</td>
</tr>
<tr>
<td>JAPN 53</td>
<td>Conversational Japanese</td>
<td>3</td>
<td>(May be taken for option of letter grade or Credit/No Credit only.) 54 hours lecture. Prerequisite: JAPN 2 or equivalent. Development of intermediate Japanese conversational skills. Emphasis on collaborative activities and practical use of the language. Extensive exposure to Japanese culture. Grammar is presented in context.</td>
</tr>
<tr>
<td>JOUR 100</td>
<td>Mass Media and Society</td>
<td>3</td>
<td>(CAN JOUR 4) Degree Appropriate, CSU, UC. (May be taken for option of letter grade or Credit/No Credit.) 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.</td>
</tr>
<tr>
<td>JOUR 101</td>
<td>Beginning News Writing</td>
<td>3</td>
<td>(CAN JOUR 2) Degree Appropriate, CSU, UC. (May be taken for option of letter grade or Credit/No 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.</td>
</tr>
<tr>
<td>JOUR 102</td>
<td>Intermediate News Writing</td>
<td>3</td>
<td>Spring Semester Degree Appropriate, CSU, UC. (May be taken for option of letter grade or Credit/No Credit.) 54 hours lecture. Prerequisite: JOUR 101 or JOUR 1A. Development of intermediate news reporting techniques combined with the composition of complex journalistic writing forms.</td>
</tr>
<tr>
<td>JOUR 103</td>
<td>Working on the Newspaper</td>
<td>3</td>
<td>(May be taken for option of letter grade or Credit/No Credit.) 18 hours lecture. Corequisite: JOUR 101 or JOUR 1A (May have been taken previously). Practical experience preparing the college newspaper. Duties may include reporting, story writing, photography, layout and design and copy editing. Students who repeat this class will improve skills through further instruction and practice.</td>
</tr>
<tr>
<td>JOUR 104</td>
<td>Newspaper Layout &amp; Design</td>
<td>3</td>
<td>(May be taken for option of letter grade or Credit/No Credit.) 36 hours lecture. Corequisite: JOUR 101 or JOUR 1A (May have been taken previously). An introduction to newspaper design using desktop publishing techniques. Includes hands-on experience publishing the student newspaper. Students who repeat this course will improve skills through further instruction and practice.</td>
</tr>
<tr>
<td>JOUR 105</td>
<td>Editor Training</td>
<td>1</td>
<td>(May be taken for option of letter grade or Credit/No Credit.) 54 hours lab. Advisory: JOUR 101 or JOUR 1A. Stresses leadership skills in a journalistic setting using the student newspaper as a practical laboratory. Designed for students selected to serve as editors or managers of the paper. Students who repeat this course will improve skills through further instruction and practice.</td>
</tr>
<tr>
<td>JOUR 106</td>
<td>Introduction to Visual Journalism</td>
<td>3</td>
<td>Fall Semester Degree Appropriate, CSU. (May be taken two times for credit.) 54 hours lecture. Corequisite: COMP 60 or COMP 62 (May have been taken previously). Photojournalism assignments using still, digital, and video cameras for offset printing (newspaper, magazine, etc.) and digital Web presentations. Basics of photojournalism, digital camera operation, shooting techniques, photo-editing software, cutline writing, video and audio production and editing, and Web homepage design production. Students who repeat this course will improve skills through further instruction and practice.</td>
</tr>
<tr>
<td>JOUR 107</td>
<td>Race, Culture, Sex, and Mass Media Images</td>
<td>3</td>
<td>Degree Appropriate, CSU. (May be taken for option of letter grade or Credit/No Credit.) 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.</td>
</tr>
<tr>
<td>JOUR 108</td>
<td>Writing for Public Relations</td>
<td>3</td>
<td>Degree Appropriate, CSU. (May be taken for option of letter grade or Credit/No Credit.) 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.</td>
</tr>
<tr>
<td>JOUR 109</td>
<td>Public Relations Internship</td>
<td>3</td>
<td>Degree Appropriate, CSU. (May be taken for option of letter grade or Credit/No Credit.) 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.</td>
</tr>
<tr>
<td>JOUR 110</td>
<td>Magazine Writing and Production</td>
<td>3</td>
<td>Degree Appropriate, CSU. (May be taken for option of letter grade or Credit/No Credit.) 36 hours lecture. 54 hours lab. Prerequisite: JOUR 101 or JOUR 1A. Production of a student-run magazine in a professional setting. Activities may include fiction and nonfiction writing, editing, ethics, interviewing, photography, art and layout. Overview of the magazine industry and markets explored. Students who repeat this course will improve skills through further instruction and practice.</td>
</tr>
<tr>
<td>JOUR 111</td>
<td>Broadcast News Writing</td>
<td>3</td>
<td>Degree Appropriate, CSU. (May be taken for option of letter grade or Credit/No Credit.) 54 hours lecture. Prerequisite: JOUR 1A or JOUR 101. Intensive news gathering and writing for radio and television. News cast planning, story organization, and functions of a broadcast newsroom explored. Emphasis on assignments for both audio and video tape media. Lecture and discussion of issues and responsibilities confronting broadcast journalists including ethics and changing technology.</td>
</tr>
</tbody>
</table>
COURSE DESCRIPTIONS

LATIN

LATIN 1 — Elementary Latin 4 Units
Degree Appropriate, CSU
(May be taken for option of letter grade or Credit/No Credit.)
72 hours lecture.
Advisory: Eligibility for READ 90 or eligibility for AMLA 33R
This course is designed for students with little or no prior experience in Latin. Emphasizes the ability to read basic Latin as it was written during the early, classical, and post-classical periods. Includes the study of vocabulary, grammar, Roman culture, and the history of the Latin language.

LATIN 2 — Continuing Elementary Latin 4 Units
Degree Appropriate, CSU
(May be taken for option of letter grade or Credit/No Credit.)
72 hours lecture.
Prerequisite: LATIN 1 or one year of high school Latin (C or better) and completed within one year of course registration
Advisory: Eligibility for READ 90 or eligibility for AMLA 33R
Second semester of coursework for students with prior coursework in Latin. Daily practice in vocabulary, grammar, and reading. Explores Roman history and culture.

LEAD 55 — Exploring Leadership 3 Units
54 hours lecture. Degree Appropriate, CSU
Designed to introduce students to the fundamental elements of leadership. Explores leadership theories and models, values and beliefs. Develops a personal philosophy of leadership that includes an understanding of self, others and community. Prepares students for leadership roles in college and community settings.

LEARNING ASSISTANCE SERVICES

LERN 48 — Basic Math Skills Review 3 Units
(May be taken for Credit/No Credit only.)
(54 hours lecture.)
(54 hours lab.)
Essential math fundamentals: multiplication tables, adding, subtracting, multiplying and dividing whole numbers and fractions. Emphasis on math learning strategies such as organization and math anxiety. Students who repeat this course will improve skills through further instruction and practice.

LERN 49 — Math Skills Review 3 Units
(May be taken for Credit/No Credit only.)
54 hours lecture.
24 hours lab.
Prerequisite: LERN 48 or passing score on current placement test
Used to improve students’ knowledge of basic math. Includes operations and applied problems in whole numbers, fractions, decimals, percentages, and proportions. Covers math study strategies such as overcoming math anxiety. Students who repeat this course will improve skills through further instruction and practice.

LERN 60 — Skills Development Laboratory 1 Unit
(May be taken for Credit/No Credit only.)
54 hours lab.
Offers individualized material in the following subjects: reading comprehension, reading acceleration, vocabulary, spelling, elementary math, algebra review, English grammar, study techniques (note-taking, test-preparation, test-taking). Students who repeat this course may be eligible to take additional hours in the skills previously tested or work on the development of other skills.

LERN 61 — Skills Development Laboratory 1 Unit
(May be taken for Credit/No Credit only.)
54 hours lab.
Offers individualized material in the following subjects: reading comprehension, reading acceleration, vocabulary, spelling, elementary math, algebra review, English grammar, study techniques (note-taking, test-preparation, test-taking). Students may register for one unit through the first half of the term. One unit requires a total expenditure of 48 hours in class. Students who repeat their course will achieve further improvement in the skills previously tested or work on the development of other skills.

LERN 62 — Skills Development Laboratory 2 Units
(May be taken for Credit/No Credit only.)
108 hours lab.
Offers individualized material in the following subjects: reading comprehension, reading acceleration, vocabulary, spelling, elementary math, algebra review, English grammar, study techniques (note-taking, test-preparation, test-taking). Students may register for units throughout the first half of the term. Two units require a total expenditure of 96 hours in class. Students who repeat their course will achieve further improvement in the skills previously tested or work on the development of other skills.

LIBRARY & INSTRUCTIONAL MEDIA

LIBR 1 — Information Resources and Research Methods 3 Units
(May be taken two times for credit.)
Degree Appropriate, CSU, UC
54 hours lecture.
Advisory: Eligibility for ENGL 68
Research methods that provide lifelong information competency necessary for independent research and critical thinking. Activities include finding, evaluating and documenting information using traditional and electronic resources, including the Internet. Students who repeat this course may be eligible to take additional units in research methods that provide lifelong information competency necessary for independent research and critical thinking.

LIBR 1A — Introduction to Library Research 1 Unit
(May be taken for Credit/No Credit only.)
18 hours lecture.
Advisory: Eligibility for ENGL 68
Basic research skills for lifelong information competency necessary for independent research and critical thinking. Topics include search strategies, citation, and use of library resources.
### COURSE DESCRIPTIONS

#### LIBR 18 — Using Electronic Resources  
1 Unit  
(May be taken two times for credit.)  
Degree Appropriate, CSU  
18 hours lecture.  
Advisory: Eligibility for ENGL 68  
Research skills using electronic resources for lifelong information competency. Topics include databases, electronic books, search strategies, citation, copyright, and plagiarism.

#### MANUFACTURING TECHNOLOGY

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Units</th>
<th>Notes</th>
<th>Hours</th>
</tr>
</thead>
</table>
| MFG 11 — Manufacturing Processes I | 2 Units | Degree Appropriate, CU | 18 hours lecture. | 54 hours lab.  
Manual and computerized manufacturing, manual lathes and mills, tool nomenclature and Computerized Numerical Control (CNC) operations. Operation of CNC machines. Students who repeat this course will improve skills through further instruction and practice. |  |
| MFG 12 — Manufacturing Processes II | 2 Units | Degree Appropriate, CU | 18 hours lecture. | 54 hours lab.  
Advisory: MFG 11  
The study of manufacturing equipment and manufacturing processes. Theory and practice in milling operations, tooling setup, metalurgy, heat treatment, precision grinding, and basic tool design. Students who repeat this course will improve skills through further instruction and practice. |  |
| MFG 15 — AutoCAD 2D | 2 Units | Degree Appropriate | 18 hours lecture. | 54 hours lab.  
Development of two dimensional AutoCAD mechanical screen drawings, as related to Computer Integrated Manufacturing (CIM), and Computer Aided Machines (CAM). Completed drawings will be translated into DFX and/or IGES files and then transferred to various CAD/CAM systems. Students who repeat this course will improve skills through further instruction and practice. |  |
| MFG 17 — 3-D CAD — Mechanical Modeling | 2 Units | Degree Appropriate | 18 hours lecture. | 54 hours lab.  
Advisory: MFG 15  
Development of three dimensional mechanical models using AutoCAD. Analysis and manipulation of mechanical solid models and industrial primitives as related to their interaction with Computer Aided Machines (CAM) and Computer Integrated Manufacturing (CIM) systems. Students who repeat this course will improve skills through further instruction and practice. |  |
| MFG 19 — Parametric Solid Modeling for Manufacturing | 2 Units | Degree Appropriate | (May be taken four times for credit.)  
18 hours lecture. | 54 hours lab.  
Advisory: MFG 17  
Development of feature-based solid modeling on a computer using current software used in industry. Transfer of solid model to a CAM system for CNC code production. Includes production of a manufactured part using CNC mill. Students who repeat this course will improve skills through further instruction and practice. |  |
| MFG 25 — Advanced Parametric Solid Modeling for Manufacturing | 2 Units | Degree Appropriate | (May be taken four times for credit.)  
18 hours lecture. | 54 hours lab.  
Advisory: MFG 19 or MFG 27 taken previously  
Advanced instruction in concepts, practice, and development of feature-based solid modeling using software currently used in the manufacturing industry. Advanced features of solid modeling global variables, 3-D helical paths generation, surface cut, table-driven parts, and advanced sheet metal, and animation. Students who repeat this course will improve skills through further instruction and practice. |  |
| MFG 27 — Autodesk Inventor | 2 Units | Degree Appropriate | (May be taken four times for credit.)  
18 hours lecture. | 54 hours lab.  
Advisory: MFG 19  
Advanced concepts, practice, and development of feature-based solid modeling using Autodesk Inventor. Solid modeling parts creation using sketched, placed, and work features. Assembly techniques, working drawings, and the transfer of a solid model to a CAM system. Students who repeat this course will improve skills through further instruction and practice. |  |
| MFG 29 — Parametric Solid Modeling for Manufacturing | 2 Units | Degree Appropriate | (May be taken four times for credit.)  
18 hours lecture. | 54 hours lab.  
Advisory: MFG 17  
Advanced concepts, practice, and development of feature-based solid modeling using MasterCAM software. Solid modeling parts creation using sketched, placed, and work features. Assembly techniques, working 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. |  |
| MFG 38B — MasterCAM I  
(May be taken four times for credit.) | 2 Units | Degree Appropriate, CU | 18 hours lecture. | 54 hours lab.  
Advisory: MFG 38  
Use 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. |  |
| MFG 39 — SurfCAM I | 2 Units | Degree Appropriate, CU | (May be taken four times for credit.)  
18 hours lecture. | 54 hours lab.  
Advisory: MFG 11, MFG 85  
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 skills through further instruction and practice. |  |
| MFG 39B — SurfCAM II | 2 Units | Degree Appropriate, CU | (May be taken four times for credit.)  
18 hours lecture. | 54 hours lab.  
Advisory: MFG 39  
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. |  |
| MFG 58 — Blueprint Reading for Manufacturing | 2 Units | Degree Appropriate | (May be taken two times for credit.)  
36 hours lecture. |  
Advisory: MFG 70  
Blueprint reading as a means of interpreting and visualizing drawings used in manufacturing. Includes the basic print form, title block, notes, materials, machining specifications, application of principles to CNC welding, and sheet metal. Students who repeat this course will improve skills through further instruction and practice. |  |
| MFG 70 — Technical Mathematics — Manufacturing Applications | 2 Units | Degree Appropriate, CU | (May be taken two times for credit.)  
36 hours lecture. |  
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. |  |
MATH 10 — Math Enhancement 0 Unit
(May be taken four times for credit.) Pre-Collegiate
18 hours activity.
Linked with a corresponding math lecture section, this course provides hands-on activities and mathematical applications designed to enhance student success and abilities in the linked course. Supplemental learning activities such as computer projects, drill and practice, study skills development, group work and student presentations.

MATH 50 — Pre-Algebra 3 Units
54 hours lecture. Pre-Collegiate
Prerequisite: Credit in LERN 49 or qualifying score on current department placement test.
Fundamental principles of mathematics designed to ease the transition from arithmetic to algebra. Concepts, computational skills, thinking skills and problem-solving skills are balanced to build proficiency and mastery.

MATH 50L — Pre-Algebra Laboratory 0 Unit
(May be taken four times for credit.) Pre-Collegiate
108 hours lab.
Corequisite: MATH 50
Open entry-open exit laboratory for students enrolled in pre-algebra. Individual and group assistance and instructional support, including review, drill and practice, and assistance with assigned laboratory projects in the Math Activities Resource Center (M.A.R.C.) Students who repeat this course will improve skills through further instruction and practice.

MATH 51A — Elementary Algebra – First Half 3 Units
54 hours lecture. Degree Appropriate
Prerequisite: MATH 50 or qualifying score on current department placement test.
Contains the first half of elementary algebra. Operations with signed numbers and algebraic expressions, linear equations and inequalities, polynomial operations and factoring, rational expressions and equations, ratios, proportions, formulas, and variation; applications.

MATH 51B — Elementary Algebra – Second Half 3 Units
54 hours lecture. Degree Appropriate
Prerequisite: MATH 51A
Contains the second half of Elementary Algebra. Includes: Cartesian Coordinate System, slope/graphing/equations of lines, solving systems of linear equations, algebraic operations with radicals, solving equations with radicals, solving second degree equations using methods of completing the square and the quadratic formula. Students must complete both MATH 51A and MATH 51B to have taken the equivalent of Elementary Algebra (MATH 51).

MATH 52 — Algebra With Applications I 4 Units
72 hours lecture. Degree Appropriate
Prerequisite: MATH 50; OR passing score on current department placement test.
First course in an alternative sequence equivalent to Beginning and Intermediate Algebra, featuring practical applications with a minimum of emphasis on review topics. Includes solving linear equations in one and two variables; applications; graphing linear equations in two variables; finding the equations of lines; solving linear and absolute value inequalities; exponents; operations with polynomials and rational expressions; factoring techniques and solving polynomial equations; and solving systems of linear equations and inequalities. A student must complete both MATH 52 and MATH 72 to have taken the equivalent of MATH 71, and both in combination will satisfy the requirement for an A.S. or A.A. degree.

MATH 51A — Elementary Algebra – First Half 3 Units
54 hours lecture. Degree Appropriate
Prerequisite: MATH 50 or qualifying score on current department placement test.
Contains the first half of elementary algebra. Operations with signed numbers and algebraic expressions, linear equations and inequalities, polynomial operations and factoring, rational expressions and equations, ratios, proportions, formulas, and variation; applications.

MATH 61 — Plane Geometry 3 Units
54 hours lecture. Degree Appropriate
Prerequisite: MATH 51 or MATH 51B or MATH 52 or qualifying score on current department placement test.
Points, lines, polygons and circles; their relationships to each other on plane surfaces; congruence, similarity and area. Introduction to inductive, deductive and indirect reasoning. The formal proof is introduced and practiced throughout the course. Stress is placed on accuracy of statement as a background for analytical and scientific reasoning.

MATH 71 — Intermediate Algebra 5 Units
90 hours lecture. Degree Appropriate
Prerequisite: MATH 51 or MATH 51B or qualifying score on current department placement test.
Reviews and extends concepts from elementary algebra, and introduces new content to prepare students for a variety of subsequent mathematics courses. Polynomial, rational, radical, exponential and logarithmic expressions are simplified, equations solved and functions graphed and studied; linear and nonlinear systems of equations and inequalities; conic sections; sequence, series and the binomial theorem. Application problems appear throughout the course.

MATH 71A — Intermediate Algebra – First Half 3 Units
54 hours lecture. Degree Appropriate
Prerequisite: MATH 51 or MATH 51B or qualifying score on current department placement test.
Algebra of functions, polynomials, and rational expressions; functions and their graphs; systems of equations with two or three variables; absolute value and compound inequalities; sequences and series; the binomial theorem.

MATH 71B — Intermediate Algebra – Second Half 3 Units
54 hours lecture. Degree Appropriate
Prerequisite: MATH 71A
Quadratic equations and graphs; exponents, radicals and logarithms; conic sections. A student must complete both MATH 71A AND MATH 71B to have taken the equivalent of intermediate algebra.

MATH 72 — Algebra With Applications II 5 Units
90 hours lecture. Degree Appropriate
Prerequisite: MATH 52
Limited to students who have successfully completed MATH 52. Features practical applications of complex fractions; solving rational equations and inequalities; exponents and radicals; solving quadratic equations and inequalities; complex numbers; the study of linear functions, quadratic functions, inverse functions, exponential and logarithmic functions, and the algebra of functions; solving systems of non-linear equations and inequalities; conic; sequences and series; and applications involving rational and quadratic equations, variation and linear, quadratic, exponential and logarithmic functions. A student must complete both MATH 52 and MATH 72 to have taken the equivalent of MATH 71, and both in combination will satisfy the requirement for an A.S. or A.A. degree.

MATH 96 — Strategies for Math Success 1 Unit
(May be taken three times for credit.) Pre-Collegiate
(May be taken for Credit/No Credit only.)
18 hours lecture.
Perspectives, understandings and strategies to utilize a learning system for acquiring, understanding, remembering and producing mathematical knowledge. Course is appropriate for all levels of mathematics students. Students who repeat this course will improve skill through further instruction and practice.
MATH 99 — Special Projects in Mathematics
(May be taken four times for credit.) Degree Appropriate, CSU
36 hours lecture.
In order to offer selected students recognition for their academic
interests and ability and the opportunity to explore their disciplines
to greater depth, the various departments from time to time offer Special
Projects courses. The content of each course and the methods of study
vary from semester to semester and depend on the particular project
under consideration. Students who repeat this course will improve skills
through further instruction and practice.

MATH 100 — Survey of College Mathematics
(CAN MATH 2) Degree Appropriate, CSU, UC
54 hours lecture.
Prerequisite: (MATH 71 or MATH 71B or MATH 72 or qualifying score on
current department placement test) AND (MATH 61 or two semesters
of high school geometry, “C” or better, or passing score on current
geometry competency test)
Introduction to mathematical methods and reasoning. Topics include:
set theory, logic, counting methods, probability and statistics, with
additional topics selected from numeration and mathematical systems,
number theory, geometry, graph theory and mathematical modeling.

MATH 110 — Elementary Statistics
(CAN STAT 2) Degree Appropriate, CSU, UC
54 hours lecture.
Prerequisite: MATH 71 or MATH 71B or MATH 72 or qualifying score on
current department placement test
Emphasis is placed on the understanding of statistical methods.
Descriptive analysis of sample statistics, distribution of discrete and
continuous random variables, estimation theory, tests of hypotheses,
regression, correlation and analysis of variance.

MATH 110H — Elementary Statistics — Honors
(CAN STAT 2) Degree Appropriate, CSU, UC
54 hours lecture.
Prerequisite: (MATH 71 or MATH 71B or MATH 72 or qualifying passing
score on current department placement test) AND (MATH 71 or two semesters
of high school geometry, “C” or better, or passing score on current
geometry competency test)
Emphasis is placed on the understanding of statistical methods.
Descriptive analysis of sample statistics, distribution of discrete and
continuous random variables, estimation theory, tests of hypotheses,
regression, correlation and analysis of variance. An honors course
designed to provide an enriched experience. Students may not receive
credit for both MATH 110 and MATH 110H.

MATH 120 — Finite Mathematics
(Fall Semester) Degree Appropriate, CSU, UC
54 hours lecture.
Prerequisite: MATH 71 or MATH 71B or MATH 72 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
(CAN MATH10) Degree Appropriate, CSU, UC
54 hours lecture.
Prerequisite: MATH 71 or MATH 71B or MATH 72 or qualifying score on
current department placement test
A study of real numbers and sets, algebraic functions and relations,
radiants and exponents, linear and quadratic equalities and inequalities,
exponential and logarithmic functions, systems of linear and quadratic
equations, complex numbers, series, theory of equations, mathematical
induction and binomial formula.

MATH 140 — Calculus for Business
(CAN MATH34) Degree Appropriate, CSU, UC
72 hours lecture.
Prerequisite: MATH 130 or MATH 160 or qualifying score on current
department placement test
Algebra, 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
(CAN MATH 8) Degree Appropriate, CSU
54 hours lecture.
Prerequisite: MATH 71 or MATH 71B or MATH 72 or qualifying score on
current department placement 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 155 — PreCalculus Mathematics
(CAN MATH16) Degree Appropriate, CSU, UC
72 hours lecture.
Prerequisite: MATH 150 OR (high school trigonometry, “C” or better, and
a passing score on current department placement test)
Real-valued functions, including algebraic, trigonometric, exponential
and logarithmic functions. Also includes proofs, inequalities,
introductory analytical geometry, series, sequences, and vectors.

MATH 160 — Precalculus Mathematics
(CAN MATH16) Degree Appropriate, CSU, UC
72 hours lecture.
Prerequisite: MATH 150 OR (high school trigonometry, “C” or better, and
a passing 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, and calculus with exponential,
logarithmic, and other transcendental functions.

MATH 161 — Calculus and Analytic Geometry
(CAN MATH 34) Degree Appropriate, CSU, UC
90 hours lecture.
Prerequisite: MATH 100
Applications of integration, techniques of integration; numerical
integration; in determinate forms and improper integrals; infinite series;
plane curves and parametric equations; vectors in two and three space
and their applications.

MATH 210 — Concepts of Elementary Mathematics
(CAN MATH 4) Degree Appropriate, 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 245 — A Transition to Advanced Mathematics
(CAN MATH 100)
Degree Appropriate, CSU, UC
54 hours lecture.
Prerequisite: MATH 100
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 280 — Calculus and Analytic Geometry
(72 hours lecture.) Degree Appropriate, CSU, UC
Prerequisite: MATH 180
Analysis of vector-valued functions of several variables, partial
derivatives, differentials, the chain rule, directional derivatives and the
gradient. Extrema of functions of several variables with applications.
Double and triple integrals in various coordinate systems with
applications. Vector fields, line integrals, work, independence of path in
conservative fields. Green’s Theorem, surface integrals, flux, divergence
curl, Stokes’ Theorem, the Divergence Theorem.
Course Descriptions

MATH 285 — Linear Algebra and Differential Equations  5 Units
(CAN MATH 24)
Degree Appropriate, 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.

MEDICAL TERMINOLOGY

MENT 56 — Medical-Surgical Nursing for Psychiatric Technicians
9 Units
162 hours lecture. Degree Appropriate
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 elimination, application of emergency procedures, circulation, ventilation, and sensory system. Application of nursing skills to medical surgical patients, including neoplasms and cardiovascular problems. Administration of medication.

MENT 58D — Advanced Medical-Surgical Nursing and Pharmacology for PT
4 Units
72 hours lecture. Degree Appropriate
Prerequisite: MENT 56, MENT 56L
Corequisite: MENT 58L
Examines disease processes affecting body systems, etiology, required nursing care; study of drugs, standards, administration; dose calculations.

MENT 58L — Advanced Medical-Surgical Nursing for Psychiatric Technicians Clinical
1.5 Units
90 hours lab.
Corequisite: MENT 58
Application of nursing skills to patients with medical/surgical disorders. Administration of medications.

MENT 70 — Introduction to Psychiatric Technology
1.5 Units
27 hours lecture. Degree Appropriate
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 sensory-motor techniques, behavior modification techniques.

MENT 70L — Introduction to Psychiatric Technology Clinical Technicians
2 Units
108 hours lecture. Degree Appropriate
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
126 hours lecture. Degree Appropriate
Prerequisite: MENT 56, MENT 70
Corequisite: MENT 72L
Etiology of mental retardation; develops the knowledge, skills, and attitudes necessary to safely teach and train the developmentally disabled person. Techniques of behavior modification and sensory-motor training are used, as well as the teaching of self-help skills. Examines normal development from infancy to the aged.

MENT 72L — Nursing Care of the Developmentally Disabled Person — Clinical
5 Units
(May be taken for Credit/No Credit only.) Degree Appropriate
288 hours lab.
Corequisite: MENT 72
Application of skills needed to teach, train and provide care for the developmentally disabled person. Administration of medication.

MENT 73L — Psychiatric Nursing for Psychiatric Technicians Clinical
5 Units
(May be taken for Credit/No Credit only.) Degree Appropriate
288 hours lab.
Corequisite: MENT 73T
Clinical instruction in the treatment of mental disabilities and substance abuse.

MENT 73T — Psychiatric Nursing for Psychiatric Technicians
6 Units
108 hours lecture. Degree Appropriate
Corequisite: MENT 73L
Theoretical instruction in the assessment and treatment of the mentally disabled, use of common medication, therapeutic communication, assertive language and leadership skills appropriate for the practicing Psychiatric Technician.

MENT 74 — Work Experience in Mental Health Technology
2 Units
150 hours lab.
Prerequisite: Compliance with Work Experience regulations as designated in the College Catalog, MENT 72, MENT 73T
Provides majors with actual on-the-job experience in an approved work station related to classroom instruction. A minimum of 60 non-paid or 75 paid clock hours per semester is required for each unit of credit. It is recommended that the hour per week be equally distributed throughout the semester. Veterans may not use work experience courses as credit towards veterans benefits.

METEOROLOGY

METO 3 — Weather and the Atmospheric Environment
3 Units
54 hours lecture. Degree Appropriate, CSU, UC
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
54 hours lab. Degree Appropriate, CSU, UC
Corequisite: METO 3 (May have been taken previously)
Laboratory topics paralleling the course content of METO 3.
**MICROBIOLOGY**

MICR 1 — Principles of Microbiology  
5 Units  
Degree Appropriate, CSU, UC  
54 hours lecture.  
Corequisite: CHEM 10 or CHEM 40. One year of college chemistry is preferred for biology and most pre-health professional majors. Fundamental concepts of microbiology with emphasis on bacteria, survey of microbial classification, morphology, physiology and genetics; beneficial and pathological aspects; growth and control of microbes; virology, immunology, and host-microbe interactions. Important infectious diseases of humans are surveyed. Laboratory exercises examine microbial morphology, physiology and genetics, as well as environmental influences of microorganisms. Laboratory techniques include culturing, examining, and identifying microorganisms.

MICR 22 — Microbiology  
4 Units  
54 hours lecture.  
Prerequisite: CHEM 10 or CHEM 40 or one year of high school chemistry (C or better)
Fundamental concepts of microbiology; viruses, bacteria, fungi, protozoa and parasitic worms.

**MUSIC**

MUS 1 — Concert Music  
1 Unit  
Degree Appropriate, CSU  
18 hours lecture.  
A concert experience in listening to recitals, media presentations, and musical demonstrations and lectures given by faculty artists and students. Attendance at and reports on additional live concerts may be required. Students who repeat this course will improve skills through further instruction and practice. Course open to all students.

MUS 2 — Music Theory  
3 Units  
54 hours lecture.  
Corequisite: MUS 5A
Studying 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 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 Romantic models.

MUS 5A — Musicianship — Ear Training and Sight Singing  
1 Unit  
18 hours lecture.  
Corequisite: MUS 2
Required for music majors. Emphasizes sight singing, aural perception and dictation of rhythm, melody, intervals and simple harmonic progressions. Students will be aided by the use of a computer lab and documented lab time outside of class will be required for successful course completion.

MUS 5B — Musicianship — Ear Training and Sight Singing  
1 Unit  
18 hours lecture.  
Prerequisite: MUS 2, MUS 5A
Corequisite: MUS 3A
Provides further training in sight singing, aural perception and dictation, including soprano-bass dictation of diatonic Bach-style chorales. Students will be aided by the use of a computer lab, and documented lab time outside of class will be required for successful course completion.

MUS 5A — 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 6A — Musicianship — Advanced  
2 Units  
36 hours lecture.  
Prerequisite: MUS 3A
Corequisite: MUS 3B
Advanced training in sight singing, aural perception and dictation, including soprano-bass dictation of modulating Bach-style chorales and imitative counterpoint. Students will be aided by the use of a computer lab, and documented lab time outside of class will be required for successful course completion.

MUS 6B — Musicianship — Advanced  
2 Units  
36 hours lecture.  
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.  
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. Students who repeat this course will improve skills through further instruction and practice.

MUS 11A — Music Literature Survey  
3 Units  
Fall Semester
A survey of western music from the Medieval period through the 18th century including examples of music from several non-western cultures. Lectures are augmented by recordings and other support media pertinent to the culture/period being studied. Attending at least one live concert is required.
### Course Descriptions

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Units</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUS 11B</td>
<td>Music Literature Survey</td>
<td>3</td>
<td>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. (May be taken for option of letter grade or Credit/No Credit.)</td>
</tr>
<tr>
<td>MUS 12</td>
<td>History of Jazz</td>
<td>3</td>
<td>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.</td>
</tr>
<tr>
<td>MUS 13</td>
<td>Introduction to Music Appreciation</td>
<td>3</td>
<td>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.</td>
</tr>
<tr>
<td>MUS 13H</td>
<td>Introduction to Music Appreciation — Honors</td>
<td>3</td>
<td>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.</td>
</tr>
<tr>
<td>MUS 14A</td>
<td>World Music</td>
<td>3</td>
<td>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.</td>
</tr>
<tr>
<td>MUS 14B</td>
<td>American Folk Music</td>
<td>3</td>
<td>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. (May be taken for option of letter grade or Credit/No Credit.)</td>
</tr>
<tr>
<td>MUS 15</td>
<td>Rock Music History and Appreciation</td>
<td>3</td>
<td>Historical survey of rock music from its beginnings in the early 50's to the present. Rhythm &amp; Blues, Rockabilly, the British Invasion, Motown, Soul, Folk Rock, Hard Rock, Punk, Heavy Metal, and various Alternative Rock styles will be discussed. Personalities and musical styles will be related to the sociology of the time period being studied.</td>
</tr>
<tr>
<td>MUS 16</td>
<td>Individual Instruction</td>
<td>3</td>
<td>A course in applied music for students also enrolled in a major performing group. Instruction includes a private one-half hour lesson plus five and one-half hours of laboratory practice per week. Individual problems of performance techniques, interpretation, and repertoire are included. Students who repeat this course will improve skills through further instruction and practice.</td>
</tr>
<tr>
<td>MUS 17A</td>
<td>Elementary Class Piano</td>
<td>1</td>
<td>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.</td>
</tr>
<tr>
<td>MUS 17B</td>
<td>Intermediate Class Piano</td>
<td>1</td>
<td>Reading and performance of piano literature with further emphasis on scales, chord progressions, and sight reading. Students who repeat this course will improve skills through further instruction and practice.</td>
</tr>
<tr>
<td>MUS 18</td>
<td>Advanced Class Piano</td>
<td>1</td>
<td>The style, technique and interpretation of piano music from the 17th century to the present is studied collectively and individually. Sight reading, improvisation and ensemble playing will be emphasized. Students who repeat this course will improve skills through further instruction and practice.</td>
</tr>
<tr>
<td>MUS 19</td>
<td>Class Organ</td>
<td>1</td>
<td>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. (May be taken for option of letter grade or Credit/No Credit.)</td>
</tr>
<tr>
<td>MUS 20A</td>
<td>Elementary Class Voice</td>
<td>1</td>
<td>English and American songs will be studied. Open to non-music majors and recommended for all music majors. Students who repeat this course will improve skills through further instruction and practice.</td>
</tr>
<tr>
<td>MUS 20B</td>
<td>Intermediate Class Voice</td>
<td>1</td>
<td>Group instruction on the basics of singing with special emphasis on breath control and its importance in the singing of the musical line. English and American songs will be studied. Open to non-music majors and recommended for all music majors. Students who repeat this course will improve skills through further instruction and practice.</td>
</tr>
<tr>
<td>MUS 21</td>
<td>Advanced Class Voice</td>
<td>1</td>
<td>Group and individual instruction toward mastering the basic skills required for a solid singing technique for popular, theatrical, and classical music. Studies of musicianship will concentrate on individual vocal problems. Students who repeat this course will improve skills through further instruction and practice.</td>
</tr>
</tbody>
</table>
### Course Descriptions

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<tbody>
<tr>
<td>MUS 22</td>
<td>Conducting</td>
<td>1</td>
<td>Degree Appropriate, CSU, UC 18 hours lecture. 18 hours lab. Teaches and practices basic beat patterns, score reading, and rehearsal techniques. Offers an opportunity to learn and apply the techniques needed for group direction and leadership. Students who repeat this course will improve skills through further instruction and practice.</td>
</tr>
<tr>
<td>MUS 23A</td>
<td>Elementary Class Guitar</td>
<td>1</td>
<td>Degree Appropriate, CSU, UC 18 hours lecture. 18 hours lab. Acoustic guitar playing, note reading, strumming, finger picking and improvisation. Students must furnish their own guitars. Students who repeat this course will improve skills through further instruction and practice.</td>
</tr>
<tr>
<td>MUS 23B</td>
<td>Intermediate Class Guitar</td>
<td>1</td>
<td>Degree Appropriate, CSU, UC 18 hours lecture. 18 hours lab. The style, technique, and interpretation of guitar music of the 18th and 19th centuries will be studied and performed. Sight reading and ensemble playing will be emphasized. Students must furnish their own acoustic guitars. Students who repeat this course will improve skills through further instruction and practice.</td>
</tr>
<tr>
<td>MUS 24</td>
<td>Advanced Class Guitar</td>
<td>1</td>
<td>Degree Appropriate, CSU, UC 18 hours lecture. 18 hours lab. The style, technique, and interpretation of guitar music of the 18th and 19th centuries will be studied and performed. Sight reading and ensemble playing will be emphasized. Students must furnish their own acoustic guitars. Students who repeat this course will improve skills through further instruction and practice.</td>
</tr>
<tr>
<td>MUS 25A</td>
<td>Jazz Improvisation</td>
<td>1</td>
<td>Degree Appropriate, CSU, UC 18 hours lecture. 18 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.</td>
</tr>
<tr>
<td>MUS 25B</td>
<td>Jazz Improvisation</td>
<td>1</td>
<td>Degree Appropriate, CSU, UC 18 hours lecture. 18 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.</td>
</tr>
<tr>
<td>MUS 27</td>
<td>Chamber Winds</td>
<td>2</td>
<td>Degree Appropriate, CSU, UC 108 hours lab. Corequisite: Admission by audtion; MUS 49 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 at all performances is required.</td>
</tr>
<tr>
<td>MUS 29</td>
<td>Choral Workshop</td>
<td>1</td>
<td>Degree Appropriate, CSU, UC 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.</td>
</tr>
<tr>
<td>MUS 30</td>
<td>Collegiate Chorale</td>
<td>1</td>
<td>Degree Appropriate, CSU, UC 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.</td>
</tr>
<tr>
<td>MUS 31</td>
<td>Concert Choir</td>
<td>2</td>
<td>Degree Appropriate, CSU, UC 108 hours lab. A mixed choral ensemble in which students perform a variety of major choral works. Classical songs are rehearsed in class and performed for a public audience. Sight singing skills and proper vocal technique are emphasized. Voice placement auditions are held the first week of class.</td>
</tr>
<tr>
<td>MUS 32</td>
<td>Masterworks Chorale</td>
<td>1</td>
<td>Degree Appropriate, CSU, UC 108 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.</td>
</tr>
<tr>
<td>MUS 33</td>
<td>Women's Vocal Ensemble</td>
<td>2</td>
<td>Degree Appropriate, CSU, UC 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.</td>
</tr>
<tr>
<td>MUS 34</td>
<td>Concert and Community Band</td>
<td>2</td>
<td>Degree Appropriate, CSU, UC 108 hours lab. 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.</td>
</tr>
<tr>
<td>MUS 35</td>
<td>Ensemble</td>
<td>1</td>
<td>Degree Appropriate, CSU, UC 18 hours lecture. 18 hours lab. Prerequisite: Ability to read music or admission by audition The study and performance of music written for small ensembles. Students who repeat this course will improve skills through further instruction and practice.</td>
</tr>
<tr>
<td>MUS 36</td>
<td>Laboratory Band</td>
<td>2</td>
<td>Degree Appropriate, CSU, UC 108 hours lab. Prerequisite: Admission by audition 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>
</tr>
</tbody>
</table>
### Course Descriptions

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<tbody>
<tr>
<td>MUS 40</td>
<td>Pep Band</td>
<td>1</td>
<td>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>
</tr>
<tr>
<td>MUS 44</td>
<td>Vocal Jazz Ensemble</td>
<td>3</td>
<td>A mixed vocal group, which includes a live rhythm section for accompaniment. Performance of vocal music in all jazz idioms. Performs for the public at festivals and at competitions. Scat improvisations and the study of jazz theory will be covered. Auditions are held the first week of classes. Students who repeat this course will improve skills through further instruction and practice.</td>
</tr>
<tr>
<td>MUS 45</td>
<td>Chamber Singers</td>
<td>3</td>
<td>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>
</tr>
<tr>
<td>MUS 46</td>
<td>Mt. SAC Singers</td>
<td>2</td>
<td>The “Mt. SAC Singers” is a select choral ensemble, specializing in choreographed popular and musical theater literature. Includes a wide variety of music performed publicly several times every semester. Emphasizes advanced musical skills, vocal technique, choreography and showmanship skills. Students who repeat this course will improve skills through further instruction and practice.</td>
</tr>
<tr>
<td>MUS 47</td>
<td>Jazz Band</td>
<td>3</td>
<td>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 authorization before enrolling in this course. Students repeating this course will make individual contracts of a more advanced nature with the instructor to ensure that proficiencies are enhanced. Projects must be approved in advance.</td>
</tr>
<tr>
<td>MUS 48</td>
<td>Men’s Vocal Ensemble</td>
<td>2</td>
<td>The study and performance of selected Classical works, folk songs, spirituals, and popular compositions. Attendance is required at public performances. Students who repeat this course will improve skills through further instruction and practice.</td>
</tr>
<tr>
<td>MUS 49</td>
<td>Wind Ensemble</td>
<td>3</td>
<td>The premier Classical wind and percussion ensemble at the College. Students must have previous instrumental training and demonstrate proficiency. Requires public performances. Concerts emphasize works of major composers, original compositions, and guest artists. Experience may be given to capable students as directors, soloists, arrangers, and composers. Students who repeat this course will improve skills through further instruction and practice.</td>
</tr>
<tr>
<td>MUS 94A</td>
<td>Special Projects in Music</td>
<td>1</td>
<td>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 authorization before enrolling in this course. Students repeating this course will make individual contracts of a more advanced nature with the instructor to ensure that proficiencies are enhanced. Projects must be approved in advance.</td>
</tr>
<tr>
<td>MUS 94B</td>
<td>Special Projects in Music</td>
<td>2</td>
<td>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 authorization before enrolling in this course. Students repeating this course will make individual contracts of a more advanced nature with the instructor to ensure that proficiencies are enhanced. Projects must be approved in advance.</td>
</tr>
<tr>
<td>MUS 99C</td>
<td>Special Projects in Music</td>
<td>3</td>
<td>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 authorization before enrolling in this course. Students repeating this course will make individual contracts of a more advanced nature with the instructor to ensure that proficiencies are enhanced. Projects must be approved in advance.</td>
</tr>
</tbody>
</table>

### Nursing Program

<table>
<thead>
<tr>
<th>Course Code</th>
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<th>Units</th>
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</tr>
</thead>
<tbody>
<tr>
<td>NURS 1A</td>
<td>The Nursing Process I</td>
<td>4.75</td>
<td>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, aspesis, medication administration, elimination, communication. The Betty Neuman Model serves as the conceptual framework.</td>
</tr>
<tr>
<td>NURS 1B</td>
<td>The Nursing Process II</td>
<td>4.75</td>
<td>Corequisite: NURS 1A or Advanced Placement Principles of nursing as related to culturally diverse population, adulthood through senescence. Theory and application of the Nursing Process, including wound care, legal/ethical aspects, comfort, fluid and electrolytes, spirituality, and nursing trends. The Betty Neuman Model serves as the conceptual framework.</td>
</tr>
<tr>
<td>NURS 2</td>
<td>Pharmacology</td>
<td>2</td>
<td>Corequisite: NURS 1A or Advanced Placement Corequisite: NURS 2 Principles of nursing as related to culturally diverse population, adulthood through senescence. Theory and application of the Nursing Process, including wound care, legal/ethical aspects, comfort, fluid and electrolytes, spirituality, and nursing trends. The Betty Neuman Model serves as the conceptual framework.</td>
</tr>
</tbody>
</table>

### Notes

- **MUS 99B** — Special Projects in Music
- **MUS 99C** — Special Projects in Music

- **MUS 99B** — Special Projects in Music
- **MUS 99C** — Special Projects in Music
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Lecture Hours</th>
<th>Lab Hours</th>
<th>Prerequisites</th>
</tr>
</thead>
<tbody>
<tr>
<td>NURS 3</td>
<td>Medical-Surgical Nursing: Locomotion/Sensation/Integument/Oncology/Immunology</td>
<td>3.5</td>
<td>30</td>
<td>99</td>
<td>18 hours lecture. Degree Appropriate, CSU</td>
</tr>
<tr>
<td>NURS 4</td>
<td>Maternity Nursing</td>
<td>3</td>
<td>27</td>
<td>81</td>
<td>45 hours lecture. Degree Appropriate, CSU</td>
</tr>
<tr>
<td>NURS 5</td>
<td>Psychiatric Nursing</td>
<td>3</td>
<td>27</td>
<td>81</td>
<td>45 hours lecture. Degree Appropriate, CSU</td>
</tr>
<tr>
<td>NURS 6</td>
<td>Pediatric Nursing</td>
<td>3</td>
<td>27</td>
<td>81</td>
<td>45 hours lecture. Degree Appropriate, CSU</td>
</tr>
<tr>
<td>NURS 7</td>
<td>Medical-Surgical Nursing: Nutrition/Elimination/Surgical Asepsis</td>
<td>7</td>
<td>60</td>
<td>198</td>
<td>5 hours lecture. Degree Appropriate, CSU</td>
</tr>
<tr>
<td>NURS 8</td>
<td>Medical-Surgical Nursing: Circulation and Oxygenation</td>
<td>5</td>
<td>45</td>
<td>144</td>
<td>45 hours lecture. Degree Appropriate, CSU</td>
</tr>
<tr>
<td>NURS 9</td>
<td>Leadership in Nursing</td>
<td>1</td>
<td>18</td>
<td></td>
<td>18 hours lecture. Degree Appropriate, CSU</td>
</tr>
<tr>
<td>NURS 10</td>
<td>Medical-Surgical Nursing: Integration/Regulation</td>
<td>4</td>
<td>45</td>
<td></td>
<td>45 hours lecture. Degree Appropriate, CSU</td>
</tr>
<tr>
<td>NURS 11</td>
<td>Preceptorship in Nursing</td>
<td>2</td>
<td>(May be taken for Credit/No Credit only.)</td>
<td>112</td>
<td>(May be taken for Credit/No Credit only.) Degree Appropriate, CSU</td>
</tr>
<tr>
<td>NURS 20</td>
<td>Nursing Work Experience Program</td>
<td>1</td>
<td>(May be taken for Credit/No Credit only.)</td>
<td>75</td>
<td>(May be taken for Credit/No Credit only.) Degree Appropriate, CSU</td>
</tr>
<tr>
<td>NURS 21</td>
<td>Nursing Work Experience Program</td>
<td>2</td>
<td>(May be taken for Credit/No Credit only.)</td>
<td>150</td>
<td>(May be taken for Credit/No Credit only.) Degree Appropriate, CSU</td>
</tr>
<tr>
<td>NURS 22</td>
<td>Nursing Work Experience Program</td>
<td>3</td>
<td>(May be taken for Credit/No Credit only.)</td>
<td>225</td>
<td>(May be taken for Credit/No Credit only.) Degree Appropriate, CSU</td>
</tr>
<tr>
<td>NURS 23</td>
<td>Nursing Work Experience Program</td>
<td>4</td>
<td>(May be taken for Credit/No Credit only.)</td>
<td>300</td>
<td>(May be taken for Credit/No Credit only.) Degree Appropriate, CSU</td>
</tr>
<tr>
<td>NURS 20</td>
<td>Nursing Work Experience Program</td>
<td>1</td>
<td>(May be taken for Credit/No Credit only.)</td>
<td>75</td>
<td>(May be taken for Credit/No Credit only.) Degree Appropriate, CSU</td>
</tr>
<tr>
<td>NURS 21</td>
<td>Nursing Work Experience Program</td>
<td>2</td>
<td>(May be taken for Credit/No Credit only.)</td>
<td>150</td>
<td>(May be taken for Credit/No Credit only.) Degree Appropriate, CSU</td>
</tr>
</tbody>
</table>

The Betty Neuman Model serves as the conceptual framework.
<table>
<thead>
<tr>
<th>COURSE DESCRIPTIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>COURSE DESCRIPTIONS</strong></td>
</tr>
<tr>
<td><strong>PHILOSOPHY</strong></td>
</tr>
<tr>
<td><strong>PHIL 3 — Logic in Practice</strong> 3 Units</td>
</tr>
<tr>
<td>Degree Appropriate, CSU, UC</td>
</tr>
<tr>
<td>54 hours lecture.</td>
</tr>
<tr>
<td>Prerequisite: Eligibility for ENGL 68</td>
</tr>
<tr>
<td>The analysis of language as an instrument of sound thinking in morals, politics and everyday life. Assists students to analyze an argument, avoid faulty conclusions in reasoning, understand levels of meaning and kinds of arguments, avoid verbal pitfalls, understand the steps of scientific methods and identify value assumptions.</td>
</tr>
<tr>
<td><strong>OCEANOGRAPHY</strong></td>
</tr>
<tr>
<td><strong>OCEA 10 — Introduction to Oceanography</strong> 3 Units</td>
</tr>
<tr>
<td>Degree Appropriate, CSU, UC</td>
</tr>
<tr>
<td>54 hours lecture.</td>
</tr>
<tr>
<td>An introduction to the ocean environment including the geologic, chemical, physical, and ecological aspects of the field. Topics include plate tectonics, currents, waves, tides, shores and human impact on the oceans. Field trips included.</td>
</tr>
<tr>
<td><strong>OCEA 10H — Introduction to Oceanography — Honors</strong> 3 Units</td>
</tr>
<tr>
<td>Degree Appropriate, CSU, UC</td>
</tr>
<tr>
<td>54 hours lecture.</td>
</tr>
<tr>
<td>Prerequisite: Acceptance into the Honors Program</td>
</tr>
<tr>
<td>An honors course designed to provide an enriched experience. Introduces the geological, chemical, physical, and biological aspects of the Earth's ocean. Topics include plate tectonics, physiography of ocean basins and continental margins, ocean sediment, atmosphere and ocean circulation, waves and tides, coasts, and marine ecology. The companion Oceanography Lab (OCEA 10L) is recommended for students needing a lab to transfer to a 4-year college/university. Field trips are required. Students may not receive credit for both OCEA 10 and OCEA 10H.</td>
</tr>
<tr>
<td><strong>OCEA 10L — Introduction to Oceanography Laboratory</strong> 1 Unit</td>
</tr>
<tr>
<td>Degree Appropriate, CSU, UC</td>
</tr>
<tr>
<td>54 hours lab.</td>
</tr>
<tr>
<td>Corequisite: OCEA 10 or OCEA 10H (May have been taken previously)</td>
</tr>
<tr>
<td>Laboratory applications and problem-solving in oceanography, including related aspects of geology, meteorology, and marine biology. Recommended for students needing a lab to transfer to a 4-year college/university.</td>
</tr>
<tr>
<td><strong>OCEA 25 — Essentials of Nutrition — Honors</strong> 3 Units</td>
</tr>
<tr>
<td>Degree Appropriate, CSU, UC</td>
</tr>
<tr>
<td>54 hours lecture.</td>
</tr>
<tr>
<td>Prerequisite: Acceptance into the Honors Program</td>
</tr>
<tr>
<td>Scientific concepts of nutrition related to the function of nutrients in basic life processes with emphasis on current health issues; individual needs; functions and sources of nutrients; scientific method for analysis and evaluation of nutrition information; dietary guidelines and current nutrition recommendations; digestion, absorption and metabolism; health, fitness and disease; nutrition in the life span.</td>
</tr>
<tr>
<td><strong>NF 10 — Nutrition for Personal Health and Wellness</strong> 3 Units</td>
</tr>
<tr>
<td>Degree Appropriate, CSU, UC</td>
</tr>
<tr>
<td>54 hours lecture.</td>
</tr>
<tr>
<td>Prerequisite: Eligibility for ENGL 68</td>
</tr>
<tr>
<td>Basic principles of human nutrition and their relationship to optimum health. Emphasizes nutrient needs, food selection and weight control during the various life stages from prenatal to adult. Student food intake is evaluated in several ways including computer diet analysis. This course is intended for non-health science majors.</td>
</tr>
<tr>
<td><strong>NF 20 — Principles of Foods With Lab</strong> 3 Units</td>
</tr>
<tr>
<td>Degree Appropriate, CSU</td>
</tr>
<tr>
<td>36 hours lecture.</td>
</tr>
<tr>
<td>54 hours lab.</td>
</tr>
<tr>
<td>Introduction to basic food science principles and food preparation procedures with emphasis on ingredient functions and interaction; food preparation techniques and skills; sensory evaluation standards; food safety and sanitation; food preparation equipment and utensils; storage standards; and nutrient retention.</td>
</tr>
<tr>
<td><strong>NF 25 — Essentials of Nutrition</strong> 3 Units</td>
</tr>
<tr>
<td>Degree Appropriate, CSU, UC</td>
</tr>
<tr>
<td>54 hours lecture.</td>
</tr>
<tr>
<td>Prerequisite: Eligibility for ENGL 68</td>
</tr>
<tr>
<td>Scientific concepts of nutrition related to the function of nutrients in basic life processes with emphasis on current health issues; individual needs; functions and sources of nutrients; scientific method for analysis and evaluation of nutrition information; dietary guidelines and current nutrition recommendations; digestion, absorption and metabolism; health, fitness and disease; nutrition in the life span.</td>
</tr>
<tr>
<td><strong>NF 25H — Essentials of Nutrition — Honors</strong> 3 Units</td>
</tr>
<tr>
<td>Degree Appropriate, CSU, UC</td>
</tr>
<tr>
<td>54 hours lecture.</td>
</tr>
<tr>
<td>Prerequisite: Acceptance into the Honors Program</td>
</tr>
<tr>
<td>Scientific concepts of nutrition related to the function of nutrients in basic life processes with emphasis on current health issues; individual needs; functions and sources of nutrients; scientific method for analysis and evaluation of nutrition information; dietary guidelines and current nutrition recommendations; digestion, absorption and metabolism; health, fitness and disease; nutrition in the life span. An honors course designed to provide an enriched experience. Students may not receive credit for both NF 25 and NF 25H.</td>
</tr>
<tr>
<td><strong>NF 28 — Cultural and Ethnic Foods</strong> 3 Units</td>
</tr>
<tr>
<td>Degree Appropriate, CSU, UC</td>
</tr>
<tr>
<td>54 hours lecture.</td>
</tr>
<tr>
<td>Advisory: Eligibility for ENGL 68</td>
</tr>
<tr>
<td>Regional, ethnic, cultural, religious, historical and social influences on food patterns and cuisines. Core components: Specialized equipment and utensils related to cultures; traditional foods of selected cultures; geographic factors in food availability; global food issues; sanitation and safety practices.</td>
</tr>
<tr>
<td><strong>NF 30 — Food Science Technologies</strong> 3 Units</td>
</tr>
<tr>
<td>Degree Appropriate, CSU</td>
</tr>
<tr>
<td>54 hours lecture.</td>
</tr>
<tr>
<td>Advisory: Eligibility for ENGL 68</td>
</tr>
<tr>
<td>Exploration of food chemistry, food processing and technology and how these affects the color, flavor, texture, aroma and quality of foods. Core components: government regulation of processing and labeling, sensory evaluation, scientific research methods, function of water in foods, pH and acidity, food processing technologies, nutritional labeling, packaging; dispersion systems, enzyme reactions, food additives, composition and properties of food.</td>
</tr>
<tr>
<td><strong>NF 61 — Creative Foods</strong> 3 Units</td>
</tr>
<tr>
<td>Degree Appropriate, CSU</td>
</tr>
<tr>
<td>36 hours lecture.</td>
</tr>
<tr>
<td>Advisory: NF 20 or food preparation experience</td>
</tr>
<tr>
<td>Instruction in the skills necessary for more advanced methods of food preparation. Topics include garde manger, baking and pastry, and international cuisine, techniques of healthy cooking, and vegetarian cuisine with emphasis placed on knife skills, garnishing, plate presentation and creative decorating.</td>
</tr>
<tr>
<td><strong>NF 62 — Meal Management</strong> 3 Units</td>
</tr>
<tr>
<td>Degree Appropriate, CSU</td>
</tr>
<tr>
<td>36 hours lecture.</td>
</tr>
<tr>
<td>Advisory: NF 20 or equivalent food preparation experience</td>
</tr>
<tr>
<td>Develop management skills related to food preparation, emphasizing planning, preparing, and serving adequate and attractive meals while managing resources including time, money and labor. Includes laboratory experience in planning, preparing and serving meals.</td>
</tr>
<tr>
<td><strong>NF 82 — Vegetarian Cuisine</strong> 1 Unit</td>
</tr>
<tr>
<td>Non-Degree Credit</td>
</tr>
<tr>
<td>(May be taken for option of letter grade or Credit/No Credit.)</td>
</tr>
<tr>
<td>12 hours lecture.</td>
</tr>
<tr>
<td>18 hours lab.</td>
</tr>
<tr>
<td>Principles and techniques of vegetarian food preparation and investigation of issues related to vegetarian eating practices. Includes laboratory experience in preparation of vegetarian foods and meals.</td>
</tr>
<tr>
<td><strong>NURS 99 — Special Projects in Nursing</strong> 2 Units</td>
</tr>
<tr>
<td>Non-Degree Credit</td>
</tr>
<tr>
<td>(May be taken four times for credit.)</td>
</tr>
<tr>
<td>(May be taken for Credit/No Credit only.)</td>
</tr>
<tr>
<td>108 hours lab.</td>
</tr>
<tr>
<td>Provides students the opportunity to explore a discipline in greater depth. Content of each course and the methods of study will depend on the particular project. Instructor’s authorization before enrolling is required.</td>
</tr>
<tr>
<td><strong>OCEA 10L — Introduction to Oceanography Laboratory</strong> 1 Unit</td>
</tr>
<tr>
<td>Degree Appropriate, CSU, UC</td>
</tr>
<tr>
<td>18 hours lab.</td>
</tr>
<tr>
<td>Principles and techniques of vegetarian food preparation and investigation of issues related to vegetarian eating practices. Includes laboratory experience in preparation of vegetarian foods and meals.</td>
</tr>
<tr>
<td><strong>PHIL 3 — Logic in Practice</strong> 3 Units</td>
</tr>
<tr>
<td>Degree Appropriate, CSU, UC</td>
</tr>
<tr>
<td>54 hours lecture.</td>
</tr>
<tr>
<td>Prerequisite: Eligibility for ENGL 68</td>
</tr>
<tr>
<td>Scientific methods and identify value assumptions. Avoid faulty conclusions in reasoning, understand levels of meaning and kinds of arguments, avoid verbal pitfalls, understand the steps of scientific methods and identify value assumptions.</td>
</tr>
<tr>
<td><strong>PHIL 20 — Principles of Foods With Lab</strong> 3 Units</td>
</tr>
<tr>
<td>Degree Appropriate, CSU</td>
</tr>
<tr>
<td>36 hours lecture.</td>
</tr>
<tr>
<td>54 hours lab.</td>
</tr>
<tr>
<td>Introduction to basic food science principles and food preparation procedures with emphasis on ingredient functions and interaction; food preparation techniques and skills; sensory evaluation standards; food safety and sanitation; food preparation equipment and utensils; storage standards; and nutrient retention.</td>
</tr>
<tr>
<td><strong>PHIL 25 — Essentials of Nutrition</strong> 3 Units</td>
</tr>
<tr>
<td>Degree Appropriate, CSU, UC</td>
</tr>
<tr>
<td>54 hours lecture.</td>
</tr>
<tr>
<td>Prerequisite: Eligibility for ENGL 68</td>
</tr>
<tr>
<td>Scientific concepts of nutrition related to the function of nutrients in basic life processes with emphasis on current health issues; individual needs; functions and sources of nutrients; scientific method for analysis and evaluation of nutrition information; dietary guidelines and current nutrition recommendations; digestion, absorption and metabolism; health, fitness and disease; nutrition in the life span.</td>
</tr>
<tr>
<td><strong>PHIL 25H — Essentials of Nutrition — Honors</strong> 3 Units</td>
</tr>
<tr>
<td>Degree Appropriate, CSU, UC</td>
</tr>
<tr>
<td>54 hours lecture.</td>
</tr>
<tr>
<td>Prerequisite: Acceptance into the Honors Program</td>
</tr>
<tr>
<td>Scientific concepts of nutrition related to the function of nutrients in basic life processes with emphasis on current health issues; individual needs; functions and sources of nutrients; scientific method for analysis and evaluation of nutrition information; dietary guidelines and current nutrition recommendations; digestion, absorption and metabolism; health, fitness and disease; nutrition in the life span. An honors course designed to provide an enriched experience. Students may not receive credit for both NF 25 and NF 25H.</td>
</tr>
<tr>
<td>Course Code</td>
</tr>
<tr>
<td>-------------</td>
</tr>
</tbody>
</table>
| PHIL 3H     | Logic in Practice – Honors                      | 3     | Degree Appropriate, CSU, UC  
Prerequisite: Acceptance into the Honors Program  
The study of language as an instrument of sound thinking in morals, politics and everyday life. Assists students to analyze an argument, avoid faulty conclusions in reasoning, understand levels of meaning and kinds of arguments, avoid verbal pitfalls, understand the steps of scientific methods and identify value assumptions. An honors course designed to provide an enriched experience. Students may not receive credit for both PHIL 3 and PHIL 3H. |
| PHIL 4      | Critical Thinking                               | 3     | Degree Appropriate, CSU, UC  
Prerequisite: Eligibility for ENGL 68  
An exploration of basic issues in ethics, social philosophy, metaphysics, theories of knowledge and contemporary philosophies of life. |
| PHIL 5H     | Introduction to Philosophy – Honors             | 3     | Degree Appropriate, CSU, UC  
Prerequisite: Acceptance into the Honors Program  
An exploration of basic issues in ethics, social philosophy, metaphysics, theories of knowledge and contemporary philosophies of life. An honors course designed to provide an enriched experience. Students may not receive credit for both PHIL 5 and PHIL 5H. |
| PHIL 8      | Critical Thinking                               | 3     | Degree Appropriate, CSU, UC  
The effective use of critical thinking in contemporary living, including recognizing faulty arguments, the usefulness of validity and truth, identifying and avoiding common fallacies in thinking. |
| PHIL 9      | Critical Thinking and Logical Writing           | 3     | Degree Appropriate, CSU, UC  
Prerequisite: ENGL 1A  
The function and use of formal and informal logic, argument, critical evaluation, and language in written composition. |
| PHIL 12     | Ethics                                          | 3     | Degree Appropriate, CSU, UC  
Prerequisite: Eligibility for ENGL 1A  
A critical analysis of empirical and normative factors involved in choice, including an examination of major ethical theories and their application to the study of moral problems. |
| PHIL 12H    | Ethics – Honors                                 | 3     | Degree Appropriate, CSU, UC  
Prerequisite: Acceptance into the Honors Program  
A critical analysis of empirical and normative factors involved in choice, including an examination of major ethical theories and their application to the study of moral problems. |
| PHIL 15     | Major World Religions                           | 3     | Degree Appropriate, CSU, UC  
Prerequisite: Acceptance into the Honors Program  
Examines the salient features of the world’s major and enduring religions. Religion is approached as the expression of one’s ultimate concern as a means of understanding the historic and ideological foundations and aspirations of the peoples of the world. The following (or more) religions are presented and examined both appreciatively and critically: Hinduism, Buddhism, Taoism, Confucianism, Shinto Islam, Judaism, and Christianity. |
| PHOT 1      | Laboratory Studies: Black-and-White Photography| 1     | Degree Appropriate, CSU, UC  
Prerequisite: Acceptance into the Honors Program  
Examines the major western philosophers and philosophical ideas from pre-Socratic times to the Renaissance. |
| PHOT 2      | Laboratory Studies: Color Photography           | 1     | Degree Appropriate, CSU, UC  
Prerequisite: Acceptance into the Honors Program  
Examines the major western philosophers and philosophical ideas from the Renaissance to the twentieth century. |
### Course Descriptions

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHOT 15</td>
<td>History of Photography</td>
<td>3</td>
<td>36 hours lecture. Degree Appropriate, CSU, UC Survey of the history of photography from circa 1839 to the present. An introduction to concepts of photographic representation and their impact on society.</td>
</tr>
<tr>
<td>PHOT 16</td>
<td>Fashion Photography</td>
<td>3</td>
<td>36 hours lecture. 54 hours lab. Prerequisite: PHOT 11 Illustrative, editorial and advertising fashion photography. Studio and location production in both black-and-white and color are emphasized. Aspects of business operation and working with clients are explored.</td>
</tr>
<tr>
<td>PHOT 17</td>
<td>Photocommunication</td>
<td>3</td>
<td>36 hours lecture. 72 hours lab. Prerequisite: PHOT 10 Explores the application of the photosensitive materials, photochemicals and optics. The emphasis will be on the aesthetic and expressive uses to which these materials lend themselves. The student is expected to supply his/her own adjustable camera.</td>
</tr>
<tr>
<td>PHOT 18</td>
<td>Portraiture and Wedding Photography</td>
<td>3</td>
<td>36 hours lecture. 54 hours lab. Techniques and photographic procedures for taking informal, formal, environmental and group portraits. In-depth study and practice in professional wedding photography.</td>
</tr>
<tr>
<td>PHOT 20</td>
<td>Color Photography</td>
<td>3</td>
<td>36 hours lecture. 54 hours lab. Prerequisite: PHOT 10 An introduction to current methods of producing color media, color negatives, positive transparencies, and outputting color prints.</td>
</tr>
<tr>
<td>PHOT 21</td>
<td>Exploring Color Photography</td>
<td>3</td>
<td>36 hours lecture. 54 hours lab. Prerequisite: PHOT 20 Explores the application of color processes as they relate to commercial and artistic styles. Emphasis is on innovative use of color and contemporary techniques. Includes media manipulation and unique processing, coloring negatives, 8x10 Polaroid, digital imagery, specialized lighting, set building, and quality control. Prerequisite: Minimum 12 units of photography at Mt. San Antonio College or equivalent preparation Development of a photography portfolio for job application or gallery exhibition purposes.</td>
</tr>
<tr>
<td>PHOT 28</td>
<td>Photography Portfolio Development</td>
<td>3</td>
<td>36 hours lecture. 54 hours lab. Prerequisite: Minimum 12 units of photography at Mt. San Antonio College or equivalent preparation Development of a photography portfolio for job application or gallery exhibition purposes.</td>
</tr>
<tr>
<td>PHOT 30</td>
<td>Commercial and Illustrative Photography</td>
<td>3</td>
<td>Fall Semester 36 hours lecture. 54 hours lab. Prerequisite: PHOT 11, PHOT 20 Application of photographic principles to commercial and illustrative photography. Practical experience in studio product photography, illustration, fashion, and architectural photography. Areas of promotion and pricing will be covered. Both black-and-white and color media will be used.</td>
</tr>
<tr>
<td>PHOT 99</td>
<td>Special Projects in Photography</td>
<td>2</td>
<td>(May be taken four times for credit.) 36 hours lecture. In order to offer selected students recognition for their academic interests and ability and the opportunity to explore their disciplines to greater depth, the various departments from time to time offer Special Projects courses. The content of each course and the methods of study vary from semester to semester and depend on the particular project under consideration. Students must have an instructor's authorization before enrolling in this course. Students repeating this course will make individual contracts of a more advanced nature with the instructor to insure that proficiencies are enhanced.</td>
</tr>
</tbody>
</table>

### Physical Education: Adaptive

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>PE-L 2</td>
<td>Physical Fitness for the Physically Limited</td>
<td>1</td>
<td>(May be taken four times for credit.) 36 hours activity. A modified muscular conditioning program using machines and free weights specifically designed to assist students with a physical challenge. Students who repeat this course will improve daily living skills through further instruction and practice.</td>
</tr>
<tr>
<td>PE-L 4</td>
<td>Adaptive Aquatics</td>
<td>1</td>
<td>(May be taken four times for credit.) 54 hours activity. Designed to assist students with a disability in developing swimming skills as well as provide hydrotherapy. Students who repeat this course will improve skills through further instruction and practice.</td>
</tr>
<tr>
<td>PE-L 10</td>
<td>Wheelchair Sports</td>
<td>1</td>
<td>(May be taken four times for credit.) 54 hours activity. Individual sports technique enhancement. Incorporate the use of a wheelchair in sports activities. Introduction to basic rules, skills, conditioning and strategies of the sport. Students who repeat this course will improve skills through further instruction and practice.</td>
</tr>
<tr>
<td>PE-L 14</td>
<td>Activity Programs for the Physically Limited</td>
<td>1</td>
<td>(May be taken four times for credit.) 54 hours activity. Designed for challenge students who require special assistance or equipment to participate in leisure activities. Course content will vary each semester in order to meet current students' needs. Students who repeat this course will improve skills through further instruction and practice.</td>
</tr>
<tr>
<td>PE-L 14-2</td>
<td>Activity Programs for the Physically Limited</td>
<td>.5</td>
<td>(May be taken four times for credit.) 36 hours activity. Designed for challenge students who require special assistance or equipment to participate in leisure activities. Course content will vary each semester in order to meet current students' needs. Students who repeat this course will improve skills through further instruction and practice.</td>
</tr>
<tr>
<td>PE-L 18</td>
<td>Weight Training for the Physically Limited</td>
<td>1</td>
<td>(May be taken four times for credit.) 54 hours activity. Designed to assist students with a physical limitation develop strength, flexibility and endurance through weight training. Students are introduced to basic skills and strategies of the health-related physical fitness. Students who repeat this course will improve skills through further instruction and practice.</td>
</tr>
</tbody>
</table>

2007-08 Mt. San Antonio College Catalog
PE-A 4 — Lifeguard Training 1 Unit
(May be taken four times for credit.) Degree Appropriate, CSU, UC
54 hours activity.
Prerequisite: 15 years of age or older, demonstrate ability to swim 500 yards using crawl, breaststroke, elementary backstroke, and sidestroke; surface dive to 9 feet and bring a ten pound brick to surface; swim under water 15 yards; tread water for two minutes continuously, legs only
Meets American Red Cross requirements for lifeguard training. To receive certification, students must pass the written and practical skills test with an 80% or better. Students who meet all qualifications will receive the American Red Cross Lifeguard Training, CPR for the Professional Rescuer and First Aid Certificates. The objective for students who repeat this course is to recertify and improve rescue techniques through supervised practice and instruction.

PE-A 8A — Swimming — Beginning 1 Unit
(May be taken four times for credit.) Degree Appropriate, CSU, UC
(May be taken for option of letter grade or Credit/No Credit.)
54 hours activity.
Designed to teach basic swimming strokes and aquatic skills to individuals with little or no swimming ability. Students who repeat this course will improve skills through further instruction and practice.

PE-A 8A-2 — Swimming — Beginning .5 Unit
(May be taken four times for credit.) Degree Appropriate, CSU, UC
(May be taken for option of letter grade or Credit/No Credit.)
36 hours activity.
Designed to teach basic swimming strokes and aquatic skills to individuals with little or no swimming ability. Students who repeat this course will improve skills through further instruction and practice.

PE-A 8B — Swimming — Intermediate 1 Unit
(May be taken four times for credit.) Degree Appropriate, CSU, UC
(May be taken for option of letter grade or Credit/No Credit.)
54 hours activity.
Designed to improve competence in swimming ability for individuals who have had instruction in all of the basic strokes and can swim in deep water. Students who repeat this course will improve skills through further instruction and practice.

PE-A 8B-2 — Swimming — Intermediate .5 Unit
(May be taken four times for credit.) Degree Appropriate, CSU, UC
(May be taken for option of letter grade or Credit/No Credit.)
36 hours activity.
Designed to improve competence in swimming ability for individuals who have had instruction in all of the basic strokes and can swim in deep water. Students who repeat this course will improve skills through further instruction and practice.

PE-A 8C — Swimming — Advanced 1 Unit
(May be taken four times for credit.) Degree Appropriate, CSU, UC
(May be taken for option of letter grade or Credit/No Credit.)
54 hours activity.
Prerequisite: Demonstrate proficiency equivalent to Red Cross Swimming Test
Designed to offer aquatic techniques of an advanced level and to refine the skill of the competent swimmer. Students who repeat this course will improve skills through further instruction and practice.

PE-A 8C-2 — Swimming — Advanced .5 Unit
(May be taken four times for credit.) Degree Appropriate, CSU, UC
(May be taken for option of letter grade or Credit/No Credit.)
36 hours activity.
Prerequisite: Demonstrate proficiency equivalent to Red Cross Swimming Test
Designed to offer aquatic techniques of an advanced level and to refine the skill of the competent swimmer. Students who repeat this course will improve skills through further instruction and practice.

PE-A 14 — Water Polo 1 Unit
(May be taken four times for credit.) Degree Appropriate, CSU, UC
(May be taken for option of letter grade or Credit/No Credit.)
54 hours activity.
Offers fundamental water polo skills including conditioning, drills, and game situations. Students who repeat this course will improve skills through further instruction and practice.

PE-A 14-2 — Water Polo .5 Unit
(May be taken four times for credit.) Degree Appropriate, CSU, UC
(May be taken for option of letter grade or Credit/No Credit.)
36 hours activity.
Offers fundamental water polo skills including conditioning, drills, and game situations. Students who repeat this course will improve skills through further instruction and practice.

PE-A 16 — Water Safety Instructor 2 Units
(CAN KINE10) Degree Appropriate, CSU, UC
(May be taken four times for credit.)
(May be taken for option of letter grade or Credit/No Credit.)
108 hours activity.
Prerequisite: 1) 17 years of age or older at the start of the course; 2) Demonstrate proficiency equivalent to Level VI of the American Red Cross Learn to Swim Program; 3) Demonstrate skills on a proficiency level equal to the American Red Cross Emergency Water Safety course
Analysis and performance of swimming skills related to safety; theory and application of methods of organizing and presenting aquatic materials. Satisfactory completion of the course may lead to the American Red Cross Water Safety Instructor’s Certificate. Repeating this course will allow for renewal of certificate and improve skills through further instruction and practice.

PE-A 18 — Springboard Diving 1 Unit
(May be taken four times for credit.) Degree Appropriate, CSU, UC
(May be taken for option of letter grade or Credit/No Credit.)
54 hours activity.
Student must possess above-average diving ability or experience in tumbling or gymnastics. Individualized instruction in the fundamentals and techniques of springboard diving. Students who repeat this course will improve skills through further instruction and practice.

PE-A 18-2 — Springboard Diving .5 Unit
(May be taken four times for credit.) Degree Appropriate, CSU, UC
(May be taken for option of letter grade or Credit/No Credit.)
36 hours activity.
Student must possess above-average diving ability or experience in tumbling or gymnastics. Individualized instruction in the fundamentals and techniques of springboard diving. Students who repeat this course will improve skills through further instruction and practice.

PE-A 20 — Aquatic Fitness 1 Unit
(May be taken four times for credit.) Degree Appropriate, CSU, UC
(May be taken for option of letter grade or Credit/No Credit.)
54 hours activity.
Student must be able to perform front crawl 50 yards. Designed to improve and maintain aquatic fitness. Emphasis on building strength, endurance and cardiovascular fitness. Students who repeat this course will improve skills through further instruction and practice.

PE-A 20-2 — Aquatic Fitness .5 Unit
(May be taken four times for credit.) Degree Appropriate, CSU, UC
(May be taken for option of letter grade or Credit/No Credit.)
36 hours activity.
Student must be able to perform front crawl 50 yards. Designed to improve and maintain aquatic fitness. Emphasis on building strength, endurance and cardiovascular fitness. Students who repeat this course will improve skills through further instruction and practice.
### Course Descriptions

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Description</th>
<th>Prerequisites</th>
<th>Notes</th>
<th>Advisory</th>
</tr>
</thead>
<tbody>
<tr>
<td>PE-A 21</td>
<td>Aqua Aerobics</td>
<td>1</td>
<td>Designed to improve cardiovascular endurance, strength, agility, flexibility and general fitness through the mode of dynamic movement in the water. Appropriate for swimmers and nonswimmers. Students who repeat this course will improve skills through further instruction and practice.</td>
<td>Degree Appropriate, CSU, UC</td>
<td>May be taken four times for credit.</td>
<td>May be taken for option of letter grade or Credit/No Credit.</td>
</tr>
<tr>
<td>PE-A 21-2</td>
<td>Aqua Aerobics</td>
<td>.5</td>
<td>Designed to improve cardiovascular endurance, strength, agility, flexibility and general fitness through the mode of dynamic movement in the water. Appropriate for swimmers and nonswimmers. Students who repeat this course will improve skills through further instruction and practice.</td>
<td>Degree Appropriate, CSU, UC</td>
<td>May be taken four times for credit.</td>
<td>May be taken for option of letter grade or Credit/No Credit.</td>
</tr>
<tr>
<td>PE-A 24</td>
<td>Aquatic Off-Season Conditioning</td>
<td>1</td>
<td>A conditioning course for the serious swimmer to receive individualized training in order to improve competitive performance. Students who repeat this course will improve skills through further instruction and practice.</td>
<td>Degree Appropriate, CSU, UC</td>
<td>May be taken four times for credit.</td>
<td>May be taken for option of letter grade or Credit/No Credit.</td>
</tr>
<tr>
<td>PE-A 24-2</td>
<td>Aquatic Off-Season Conditioning</td>
<td>.5</td>
<td>A conditioning course for the serious swimmer to receive individualized training in order to improve competitive performance. Students who repeat this course will improve skills through further instruction and practice.</td>
<td>Degree Appropriate, CSU, UC</td>
<td>May be taken four times for credit.</td>
<td>May be taken for option of letter grade or Credit/No Credit.</td>
</tr>
<tr>
<td>PE-X 6</td>
<td>Baseball – Men</td>
<td>2</td>
<td>Designed 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>
<td>Degree Appropriate, CSU, UC</td>
<td>May be taken four times for credit.</td>
<td>May be taken for option of letter grade or Credit/No Credit.</td>
</tr>
<tr>
<td>PE-X 8A</td>
<td>Basketball – Men</td>
<td>1</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>
<td>Degree Appropriate, CSU, UC</td>
<td>May be taken four times for credit.</td>
<td>May be taken for option of letter grade or Credit/No Credit.</td>
</tr>
<tr>
<td>PE-X 8B</td>
<td>Basketball – Men</td>
<td>1</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>
<td>Degree Appropriate, CSU, UC</td>
<td>May be taken four times for credit.</td>
<td>May be taken for option of letter grade or Credit/No Credit.</td>
</tr>
<tr>
<td>PE-X 10A</td>
<td>Basketball – Women</td>
<td>1</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>
<td>Degree Appropriate, CSU, UC</td>
<td>May be taken four times for credit.</td>
<td>May be taken for option of letter grade or Credit/No Credit.</td>
</tr>
<tr>
<td>PE-X 10B</td>
<td>Basketball – Women</td>
<td>1</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>
<td>Degree Appropriate, CSU, UC</td>
<td>May be taken four times for credit.</td>
<td>May be taken for option of letter grade or Credit/No Credit.</td>
</tr>
<tr>
<td>PE-X 11</td>
<td>Cross Country – Men</td>
<td>2</td>
<td>Designed for Men’s Intercollegiate Cross Country team candidates and provides instruction in the components of training and conditioning related to the sport of cross country. Students who repeat this course will improve skills through further instruction and practice.</td>
<td>Degree Appropriate, CSU, UC</td>
<td>May be taken four times for credit.</td>
<td>May be taken for option of letter grade or Credit/No Credit.</td>
</tr>
<tr>
<td>PE-X 12</td>
<td>Cross Country – Women</td>
<td>2</td>
<td>Designed for Men’s Intercollegiate Cross Country team candidates and provides instruction in the components of training and conditioning related to the sport of cross country. Students who repeat this course will improve skills through further instruction and practice.</td>
<td>Degree Appropriate, CSU, UC</td>
<td>May be taken four times for credit.</td>
<td>May be taken for option of letter grade or Credit/No Credit.</td>
</tr>
<tr>
<td>PE-X 16</td>
<td>Football – Men</td>
<td>2</td>
<td>Designed for Men’s Intercollegiate Football Team candidates and provides instruction in the components of training and conditioning related to the sport of football. Students who repeat this course will improve skills through further instruction and practice.</td>
<td>Degree Appropriate, CSU, UC</td>
<td>May be taken four times for credit.</td>
<td>May be taken for option of letter grade or Credit/No Credit.</td>
</tr>
<tr>
<td>PE-X 18</td>
<td>Golf – Men</td>
<td>2</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>
<td>Degree Appropriate, CSU, UC</td>
<td>May be taken four times for credit.</td>
<td>May be taken for option of letter grade or Credit/No Credit.</td>
</tr>
<tr>
<td>PE-X 19</td>
<td>Golf – Women</td>
<td>2</td>
<td>Designed 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>
<td>Degree Appropriate, CSU, UC</td>
<td>May be taken four times for credit.</td>
<td>May be taken for option of letter grade or Credit/No Credit.</td>
</tr>
<tr>
<td>PE-X 24</td>
<td>Soccer – Men</td>
<td>2</td>
<td>Designed for Men’s Intercollegiate Soccer Team candidates and provides instruction in the components of training and conditioning related to the sport of soccer. Students who repeat this course will improve skills through further instruction and practice.</td>
<td>Degree Appropriate, CSU, UC</td>
<td>May be taken four times for credit.</td>
<td>May be taken for option of letter grade or Credit/No Credit.</td>
</tr>
<tr>
<td>PE-X 25</td>
<td>Soccer – Women</td>
<td>2</td>
<td>Designed for Women’s Intercollegiate Soccer Team candidates and provides instruction in the components of training and conditioning related to the sport of soccer. Students who repeat this course will improve skills through further instruction and practice.</td>
<td>Degree Appropriate, CSU, UC</td>
<td>May be taken four times for credit.</td>
<td>May be taken for option of letter grade or Credit/No Credit.</td>
</tr>
<tr>
<td>Course Code</td>
<td>Course Title</td>
<td>Credit Units</td>
<td>Description</td>
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<tr>
<td>PE-X 26</td>
<td>Softball – Women</td>
<td>2 Units</td>
<td>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>
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</tr>
<tr>
<td>PE-X 28</td>
<td>Swimming – Men</td>
<td>2 Units</td>
<td>Designed for Men's Intercollegiate Swim Team candidates and provides instruction in the components of training and conditioning related to the sport of swimming. Students who repeat this course will improve skills through further instruction and practice.</td>
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</tr>
<tr>
<td>PE-X 30</td>
<td>Swimming – Women</td>
<td>2 Units</td>
<td>Designed for Women's Intercollegiate Swim Team candidates and provides instruction in the components of training and conditioning related to the sport of swimming. Students who repeat this course will improve skills through further instruction and practice.</td>
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</tr>
<tr>
<td>PE-X 32</td>
<td>Tennis – Men</td>
<td>2 Units</td>
<td>Designed for Men's Intercollegiate Tennis Team candidates and provides instruction in the components of training and conditioning related to the sport of tennis. Students who repeat this course will improve skills through further instruction and practice.</td>
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</tr>
<tr>
<td>PE-X 34</td>
<td>Tennis – Women</td>
<td>2 Units</td>
<td>Designed for Women's Intercollegiate Tennis Team candidates and provides instruction in the components of training and conditioning related to the sport of tennis. Students who repeat this course will improve skills through further instruction and practice.</td>
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</tr>
<tr>
<td>PE-X 38</td>
<td>Track and Field – Men</td>
<td>2 Units</td>
<td>Designed for students wishing to compete and/or train in intercollegiate track and field. Students will participate in a minimum of 10 hours per week at practice and intercollegiate competition. Students who repeat this course will improve skills through further instruction and practice.</td>
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</tr>
<tr>
<td>PE-X 42</td>
<td>Track and Field – Women</td>
<td>2 Units</td>
<td>Designed for students wishing to compete and/or train in intercollegiate track and field. Students will participate in a minimum of 10 hours per week at practice and intercollegiate competition. Students who repeat this course will improve skills through further instruction and practice.</td>
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</tr>
<tr>
<td>PE-X 44</td>
<td>Volleyball – Men</td>
<td>2 Units</td>
<td>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>
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</tr>
<tr>
<td>PE-X 46</td>
<td>Volleyball – Women</td>
<td>2 Units</td>
<td>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>
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</tr>
<tr>
<td>PE-X 48</td>
<td>Water Polo – Men</td>
<td>2 Units</td>
<td>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>
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</tr>
<tr>
<td>PE-X 49</td>
<td>Water Polo – Women</td>
<td>2 Units</td>
<td>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>
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<tr>
<td>PE-X 50</td>
<td>Wrestling – Men</td>
<td>2 Units</td>
<td>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>
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</tr>
<tr>
<td>PE-X 70</td>
<td>Pep Squad</td>
<td>2 Units</td>
<td>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>
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</tr>
<tr>
<td>PE-X 99</td>
<td>Off-Season Athletics</td>
<td>2 Units</td>
<td>Off-season intercollegiate athletics. Designed for athletic team candidates and includes practice, conditioning and game play. Students who repeat this course will improve skills through further instruction and practice.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PE-X 99-2</td>
<td>Off-Season Athletics</td>
<td>.5 Unit</td>
<td>Off-season intercollegiate athletics. Designed for athletic team candidates and includes practice, conditioning and game play. Students who repeat this course will improve skills through further instruction and practice.</td>
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<td></td>
</tr>
<tr>
<td>PE-X 99-3</td>
<td>Off-Season Athletics</td>
<td>.75 Unit</td>
<td>Off-season intercollegiate athletics. Designed for athletic team candidates and includes practice, conditioning and game play. Students who repeat this course will improve skills through further instruction and practice.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| PE-X 99-4   | Off-Season Athletics         | 1 Unit       | Off-season intercollegiate athletics. Designed for athletic team candidates and includes practice, conditioning and game play. Students who repeat this course will improve skills through further instruction and practice.
<table>
<thead>
<tr>
<th>Course Description</th>
<th>Units</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>PE-X 99-6 — Off-Season Athletics                                                  1.5</td>
<td>Designed to improve fitness levels through cardiovascular activities. Students who repeat this course will improve skills through further instruction and practice.</td>
<td></td>
</tr>
<tr>
<td>PE-F 2A — Body Building — Beginning                                               1</td>
<td>Basic fundamentals of strength development and physical conditioning. Students who repeat this course will improve skills through further instruction and practice.</td>
<td></td>
</tr>
<tr>
<td>PE-F 2A-2 — Body Building — Beginning                                            .5</td>
<td>Basic fundamentals of strength development and physical conditioning. Students who repeat this course will improve skills through further instruction and practice.</td>
<td></td>
</tr>
<tr>
<td>PE-F 2B — Body Building — Advanced                                               1</td>
<td>Advanced fundamentals of strength development and physical conditioning. Students who repeat this course will improve skills through further instruction and practice.</td>
<td></td>
</tr>
<tr>
<td>PE-F 2B-2 — Body Building — Advanced                                             .5</td>
<td>Advanced fundamentals of strength development and physical conditioning. Students who repeat this course will improve skills through further instruction and practice.</td>
<td></td>
</tr>
<tr>
<td>PE-F 4 — Cardiovascular Conditioning                                             1</td>
<td>Designed to improve fitness levels through cardiovascular activities. Students who repeat this course will improve skills through further instruction and practice.</td>
<td></td>
</tr>
<tr>
<td>PE-F 4-2 — Cardiovascular Conditioning                                          .5</td>
<td>Designed to improve fitness levels through cardiovascular activities. Students who repeat this course will improve skills through further instruction and practice.</td>
<td></td>
</tr>
<tr>
<td>PE-F 6A — Physical Fitness — Beginning                                           1</td>
<td>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.</td>
<td></td>
</tr>
<tr>
<td>PE-F 6A-2 — Physical Fitness — Beginning                                        .5</td>
<td>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.</td>
<td></td>
</tr>
<tr>
<td>PE-F 6B — Physical Fitness — Intermediate                                        1</td>
<td>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.</td>
<td></td>
</tr>
<tr>
<td>PE-F 6B-2 — Physical Fitness — Intermediate                                      .5</td>
<td>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.</td>
<td></td>
</tr>
<tr>
<td>PE-F 6C — Physical Fitness — Advanced                                           1</td>
<td>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.</td>
<td></td>
</tr>
<tr>
<td>PE-F 6C-2 — Physical Fitness — Advanced                                         .5</td>
<td>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.</td>
<td></td>
</tr>
<tr>
<td>PE-F 9 — Conditioning for Sports                                                 1</td>
<td>A conditioning course for athletes to develop fundamental skills and techniques for intercollegiate athletic competition. Students who repeat this course will improve skills through further instruction and practice.</td>
<td></td>
</tr>
<tr>
<td>PE-F 9-2 — Conditioning for Sports                                              .5</td>
<td>A conditioning course for athletes to develop fundamental skills and techniques for intercollegiate athletic competition. Students who repeat this course will improve skills through further instruction and practice.</td>
<td></td>
</tr>
<tr>
<td>PE-F 10 — Weight Training                                                        1</td>
<td>A muscular conditioning program using machines and free weights. Students who repeat this course will improve skills through further instruction and practice.</td>
<td></td>
</tr>
<tr>
<td>PE-F 10-2 — Weight Training                                                       .5</td>
<td>A muscular conditioning program using machines and free weights. Students who repeat this course will improve skills through further instruction and practice.</td>
<td></td>
</tr>
<tr>
<td>PE-F 12 — Fitness and Body Conditioning                                          1</td>
<td>Circuit training, aerobic activity and overview of health concepts. Emphasis on nutrition, weight management, stress reduction and the benefits of exercise on overall health. Students who repeat this course will improve skills through further instruction and practice.</td>
<td></td>
</tr>
</tbody>
</table>
### Course Descriptions

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Units</th>
<th>Prerequisites</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>PE-F 12-2</td>
<td>Fitness and Body Conditioning</td>
<td>.5</td>
<td>Degree Appropriate, CSU, UC</td>
<td>Designed for students concentrating on strength development through various types of exercise. Students who repeat this course will improve skills through further instruction and practice.</td>
</tr>
<tr>
<td>PE-F 13</td>
<td>Exercise Dynamics</td>
<td>2</td>
<td>Degree Appropriate, CSU, UC</td>
<td>Increased frequency and duration of circuit training and aerobic activity; continued overview of health concepts; heightened emphasis on nutrition, weight management, stress reduction and the benefit of exercise on overall health. Students who repeat this course will improve skills through further instruction and practice.</td>
</tr>
<tr>
<td>PE-F 17</td>
<td>Fitness Walking</td>
<td>1</td>
<td>Degree Appropriate, CSU, UC</td>
<td>An overall wellness program through fitness walking, a low-impact aerobic activity. Consists of participation in walking courses around Mt. San Antonio College and the surrounding community. Also includes nutrition, personal skill development, weight management, cardiovascular endurance, stress management and goal setting. Students who repeat this course will improve skills through further instruction and practice.</td>
</tr>
<tr>
<td>PE-F 17-2</td>
<td>Fitness Walking</td>
<td>.5</td>
<td>Degree Appropriate, CSU, UC</td>
<td>An overall wellness program through fitness walking, a low-impact aerobic activity. Consists of participation in walking courses around Mt. San Antonio College and the surrounding community. Also includes nutrition, personal skill development, weight management, cardiovascular endurance, stress management and goal setting. Students who repeat this course will improve skills through further instruction and practice.</td>
</tr>
<tr>
<td>PE-F 18</td>
<td>Fitness Fundamentals</td>
<td>2</td>
<td>Degree Appropriate, CSU, UC</td>
<td>Provides the foundations in specific areas of fitness to set-up, maintain and organize a personalized fitness program. Presents in-depth coverage of each area of fitness in managing and promoting an individualized fitness regime. Students who repeat this course will improve skills through further instruction and practice.</td>
</tr>
<tr>
<td>PE-F 19</td>
<td>Strength Training</td>
<td>2</td>
<td>Degree Appropriate, CSU, UC</td>
<td>Designed for students concentrating on strength development through various types of exercise. Students who repeat this course will improve skills through further instruction and practice.</td>
</tr>
<tr>
<td>PE-F 22</td>
<td>Total Fitness — Beginning</td>
<td>2</td>
<td>Degree Appropriate, CSU, UC</td>
<td>Fitness training with increased frequency and duration. Includes nutrition, exercise concepts, stress management, cardiovascular conditioning, muscle strength and flexibility training. Students who repeat this course will improve skills through further instruction and practice.</td>
</tr>
<tr>
<td>PE-F 30</td>
<td>Baseline Fitness Assessment</td>
<td>.25</td>
<td>Degree Appropriate, CSU, UC</td>
<td>Baseline fitness assessment of body composition, strength, strength endurance, cardiovascular endurance and flexibility. Includes interpretation of assessment results and guidelines for a personal exercise program. Students who repeat this course will improve skills through further instruction and practice.</td>
</tr>
<tr>
<td>PE-F 31</td>
<td>Fitness Testing</td>
<td>1</td>
<td>Degree Appropriate, CSU, UC</td>
<td>Personal fitness assessment of body composition, strength, strength endurance, cardiovascular endurance and flexibility. Includes nutrition, fitness components, stress management, interpretation of assessment results, and exercise guidelines. Students who repeat this course will improve skills through further instruction and practice.</td>
</tr>
<tr>
<td>PE-F 34</td>
<td>Cardiorespiratory Training</td>
<td>1</td>
<td>Degree Appropriate, CSU, UC</td>
<td>Individualized exercise programs designed to improve cardiorespiratory performance. Students who repeat this course will improve skills through further instruction and practice.</td>
</tr>
<tr>
<td>PE-F 35</td>
<td>Cardiorespiratory Training</td>
<td>2</td>
<td>Degree Appropriate, CSU, UC</td>
<td>Individualized exercise programs designed to improve cardiorespiratory performance. Students who repeat this course will improve skills through further instruction and practice.</td>
</tr>
<tr>
<td>PE-F 36</td>
<td>Circuit Training</td>
<td>1</td>
<td>Degree Appropriate, CSU, UC</td>
<td>Muscular strength and endurance exercise on circuit training equipment. Students who repeat this course will improve skills through further instruction and practice.</td>
</tr>
<tr>
<td>PE-F 36-2</td>
<td>Circuit Training</td>
<td>.5</td>
<td>Degree Appropriate, CSU, UC</td>
<td>Muscular strength and endurance exercise on circuit training equipment. Students who repeat this course will improve skills through further instruction and practice.</td>
</tr>
<tr>
<td>PE-F 37</td>
<td>Circuit Training</td>
<td>2</td>
<td>Degree Appropriate, CSU, UC</td>
<td>Muscular strength and endurance exercise on circuit training equipment with increased frequency and duration. Students who repeat this course will improve skills through further instruction and practice.</td>
</tr>
<tr>
<td>PE-F 38</td>
<td>Aerobics</td>
<td>1</td>
<td>Degree Appropriate, CSU, UC</td>
<td>Aerobic exercise to improve cardiorespiratory efficiency. Students who repeat this course will improve skills through further instruction and practice.</td>
</tr>
<tr>
<td>PE-F 38-2</td>
<td>Aerobics</td>
<td>.5</td>
<td>Degree Appropriate, CSU, UC</td>
<td>Aerobic exercise to improve cardiorespiratory efficiency. Students who repeat this course will improve skills through further instruction and practice.</td>
</tr>
</tbody>
</table>
Course Descriptions

PE-F 39 — Aerobics 2 Units
(May be taken four times for credit.) Degree Appropriate, CSU, UC
(May be taken for option of letter grade or Credit/No Credit.)
108 hours activity.
Group aerobic exercise to improve cardio respiratory efficiency. Students who repeat this course will improve skills through further instruction and practice.

PE-F 50 — Physical Skills Preparation for Administration of Justice and Fire Technology 2 Units
(May be taken four times for credit.) Degree Appropriate, CSU, UC
(May be taken for option of letter grade or Credit/No Credit.)
108 hours activity.
Through supervised and individualized training programs, the student will develop the necessary conditioning levels to pass entrance examinations in Administration of Justice and Fire Technology fields. Students who repeat this course will improve skills through further instruction and practice.

PE-F 51 — Agility Testing Preparation for Administration of Justice and Fire Technology 1 Unit
(May be taken four times for credit.) Degree Appropriate, CSU
(May be taken for option of letter grade or Credit/No Credit.)
72 hours activity.
A training program directed toward simulated physical agility testing approximating that 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
(May be taken four times for credit.) Degree Appropriate, CSU
(May be taken for option of letter grade or Credit/No Credit.)
72 hours activity.
A conditioning program to maintain strength, agility, cardiovascular fitness and flexibility necessary to perform the tasks required of personnel in fields of law enforcement, fire science and forestry. Students who repeat this course will improve skills through further instruction and practice.

PE-F 53 — Physical Training for the Basic Fire Academy 2.5 Units
(May be taken four times for credit.) Degree Appropriate, CSU
(May be taken for option of letter grade or Credit/No Credit.)
68 hours lecture.
68 hours activity.
Prepare the Basic Fire Academy student for the physical demands of the fire service. Through a supervised individualized training program, the student will acquire cardiovascular endurance, flexibility and strength. Students who repeat this course will improve skills through further instruction and practice.

PE-F 59 — Firefighter Physical Ability Test .1 Unit
(May be taken four times for credit.) Non-Degree Credit
(May be taken for Credit/No Credit only.)
2 hours lecture.
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: Firestat.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 1 — Rock Climbing 1 Unit
(May be taken four times for credit.) Degree Appropriate
(May be taken for option of letter grade or Credit/No Credit.)
54 hours activity.
Instruction in rock climbing. Includes preparation, equipment, techniques and strategies of rock climbing. Students who repeat this course will improve skills through further instruction and practice.

PE-I 18A — Golf – Beginning 1 Unit
(May be taken four times for credit.) Degree Appropriate, CSU, UC
(May be taken for option of letter grade or Credit/No Credit.)
36 hours activity.
Basic fundamentals of golf. Emphasis on technique, strategy, and rules. Students who repeat this course will improve skills through further instruction and practice.

PE-I 18B — Golf – Intermediate 1 Unit
(May be taken four times for credit.) Degree Appropriate, CSU, UC
(May be taken for option of letter grade or Credit/No Credit.)
36 hours activity.
Instruction for the golfer with previous golf experience. Includes putting, game management, club selection, and principles of the swing. Students must have their own golf clubs. Classes will be held at sites both on and off the Mt. SAC campus. Students who repeat this course will improve skills through further instruction and practice.

PE-I 4A — Badminton – Beginning 1 Unit
(May be taken four times for credit.) Degree Appropriate, CSU, UC
(May be taken for option of letter grade or Credit/No Credit.)
54 hours activity.
Basic badminton fundamentals and technique. Includes care of equipment; singles and doubles strategies. Students who repeat this course will improve skills through further instruction and practice.

PE-I 4A-2 — Badminton – Beginning .5 Unit
(May be taken four times for credit.) Degree Appropriate, CSU, UC
(May be taken for option of letter grade or Credit/No Credit.)
36 hours activity.
Basic badminton fundamentals and technique. Includes care of equipment; singles and doubles strategies. Students who repeat this course will improve skills through further instruction and practice.

PE-I 4B — Badminton – Intermediate 1 Unit
(May be taken four times for credit.) Degree Appropriate, CSU, UC
(May be taken for option of letter grade or Credit/No Credit.)
54 hours activity.
Intermediate badminton fundamentals and techniques, including competitive strategies. Students who repeat this course will improve skills through further instruction and practice.

PE-I 4B-2 — Badminton – Intermediate .5 Unit
(May be taken four times for credit.) Degree Appropriate, CSU, UC
(May be taken for option of letter grade or Credit/No Credit.)
36 hours activity.
Intermediate badminton fundamentals and techniques, including competitive strategies. Students who repeat this course will improve skills through further instruction and practice.

PE-I 4C-2 — Badminton – Advanced .5 Unit
(May be taken four times for credit.) Degree Appropriate, CSU, UC
(May be taken for option of letter grade or Credit/No Credit.)
36 hours activity.
Designed for the advanced badminton player. Includes advanced competition strategies and techniques. Students who repeat this course will receive advanced instruction to prepare for competitive situations.

PE-I 108A — Firefighter Physical Ability Test .1 Unit
(May be taken four times for credit.) Non-Degree Credit
(May be taken for Credit/No Credit only.)
2 hours activity.
Allow for renewal of certificate and improvement of technique through further education in Administration of Justice and Fire Technology fields.

PE-I 1A — Rock Climbing – Intermediate 1 Unit
(May be taken four times for credit.) Degree Appropriate
(May be taken for option of letter grade or Credit/No Credit.)
72 hours activity.
Advanced instruction to prepare for competitive situations. Students who repeat this course will improve skills through further instruction and practice.

PE-I 1B — Rock Climbing – Advanced 1 Unit
(May be taken four times for credit.) Degree Appropriate
(May be taken for option of letter grade or Credit/No Credit.)
72 hours activity.
Advanced instruction to prepare for competitive situations. Students who repeat this course will improve skills through further instruction and practice.

PE-I 1B-2 — Rock Climbing – Advanced .5 Unit
(May be taken four times for credit.) Degree Appropriate
(May be taken for option of letter grade or Credit/No Credit.)
36 hours activity.
Advanced instruction to prepare for competitive situations. Students who repeat this course will improve skills through further instruction and practice.

PE-I 1B — Rock Climbing – Advanced 1 Unit
(May be taken four times for credit.) Degree Appropriate
(May be taken for option of letter grade or Credit/No Credit.)
72 hours activity.
Advanced instruction to prepare for competitive situations. Students who repeat this course will improve skills through further instruction and practice.

PE-I 1B-2 — Rock Climbing – Advanced .5 Unit
(May be taken four times for credit.) Degree Appropriate
(May be taken for option of letter grade or Credit/No Credit.)
36 hours activity.
Advanced instruction to prepare for competitive situations. Students who repeat this course will improve skills through further instruction and practice.
<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
<th>Hours</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>PE-I 18C — Golf — Advanced</td>
<td>1 Unit</td>
<td>54 hours</td>
<td>Instruction for the experienced golfer with emphasis on golf swing analysis. Classes will be held at sites both on and off the Mt. SAC campus. Students must have their own golf clubs. Students who repeat this course will improve skills through further instruction and practice.</td>
<td></td>
</tr>
<tr>
<td>PE-I 18C-2 — Golf — Advanced</td>
<td>.5 Unit</td>
<td>36 hours</td>
<td>Instruction for the experienced golfer with emphasis on golf swing analysis. Classes will be held at sites both on and off the Mt. SAC campus. Students must have their own golf clubs. Students who repeat this course will improve skills through further instruction and practice.</td>
<td></td>
</tr>
<tr>
<td>PE-I 28 — Racquetball</td>
<td>1 Unit</td>
<td>54 hours</td>
<td>Racquetball fundamentals, skills and game play. Students who repeat this course will improve skills through further instruction and practice.</td>
<td></td>
</tr>
<tr>
<td>PE-I 29 — Self Defense/Martial Arts</td>
<td>1 Unit</td>
<td>54 hours</td>
<td>Basic concepts of self defense and martial arts. Covers technique in three ranges of combat: grappling, kick/punch, and weapons range. Students who repeat this course will improve skills through further instruction and practice.</td>
<td></td>
</tr>
<tr>
<td>PE-I 29-2 — Self Defense/Martial Arts</td>
<td>.5 Unit</td>
<td>36 hours</td>
<td>Basic concepts of self defense and martial arts. Covers technique in three ranges of combat: grappling, kick/punch, and weapons range. Students who repeat this course will improve skills through further instruction and practice.</td>
<td></td>
</tr>
<tr>
<td>PE-I 31A — Jujitsu — Beginning</td>
<td>1 Unit</td>
<td>36 hours</td>
<td>Fundamentals of Brazilian Jujitsu. Basic positions, breakfalls, training techniques, strategy, finishing holds, competition, history and philosophy. Students who repeat this course will improve skills through further instruction and practice. Students are required to provide their own Judo/Jujitsu gi uniform.</td>
<td></td>
</tr>
<tr>
<td>PE-I 31A-2 — Jujitsu — Beginning</td>
<td>.5 Unit</td>
<td>18 hours</td>
<td>Fundamentals of Brazilian Jujitsu. Basic positions, breakfalls, training techniques, strategy, finishing holds, competition, history and philosophy. Students who repeat this course will improve skills through further instruction and practice. Students are required to provide their own Judo/Jujitsu gi uniform.</td>
<td></td>
</tr>
<tr>
<td>PE-I 33 — Kickboxing</td>
<td>1 Unit</td>
<td>54 hours</td>
<td>Presents the martial sport of kickboxing. Includes basic techniques for offense and defense, cardiovascular endurance, strategy and training modes. Students who repeat this course will improve skills through further instruction and practice.</td>
<td></td>
</tr>
<tr>
<td>PE-I 33-2 — Kickboxing</td>
<td>.5 Unit</td>
<td>27 hours</td>
<td>Presents the martial sport of kickboxing. Includes basic techniques for offense and defense, cardiovascular endurance, strategy and training modes. Students who repeat this course will improve skills through further instruction and practice.</td>
<td></td>
</tr>
<tr>
<td>PE-I 34 — Women's Self Defense</td>
<td>1 Unit</td>
<td>54 hours</td>
<td>Techniques for personal protection and safety with emphasis on defensive tactics for women. Students who repeat this course will improve skills through further instruction and practice.</td>
<td></td>
</tr>
<tr>
<td>PE-I 34-2 — Women's Self Defense</td>
<td>.5 Unit</td>
<td>27 hours</td>
<td>Techniques for personal protection and safety with emphasis on defensive tactics for women. Students who repeat this course will improve skills through further instruction and practice.</td>
<td></td>
</tr>
<tr>
<td>PE-I 35 — Karate</td>
<td>1 Unit</td>
<td>54 hours</td>
<td>Fundamentals of traditional karate. Includes form, technique, history and philosophy. Students who repeat this course will improve skills through further instruction and practice.</td>
<td></td>
</tr>
<tr>
<td>PE-I 35-2 — Karate</td>
<td>.5 Unit</td>
<td>27 hours</td>
<td>Fundamentals of traditional karate. Includes form, technique, history and philosophy. Students who repeat this course will improve skills through further instruction and practice.</td>
<td></td>
</tr>
<tr>
<td>PE-I 37A — Tai Chi Chuan — Beginning</td>
<td>1 Unit</td>
<td>54 hours</td>
<td>Instruction and practice for the experienced Tai Chi Chuan practitioner. Emphasis will be on the sword form. Students who repeat this course will improve skills through further instruction and practice.</td>
<td></td>
</tr>
<tr>
<td>PE-I 37A-2 — Tai Chi Chuan — Beginning</td>
<td>.5 Unit</td>
<td>27 hours</td>
<td>Instruction and practice for the experienced Tai Chi Chuan practitioner. Emphasis will be on the sword form. Students who repeat this course will improve skills through further instruction and practice.</td>
<td></td>
</tr>
<tr>
<td>PE-I 37B — Tai Chi Chuan — Intermediate</td>
<td>1 Unit</td>
<td>54 hours</td>
<td>Intermediate Tai Chi Chuan fundamentals and principles. Includes instruction in a traditional long form. Students who repeat this course will improve skills through further instruction and practice.</td>
<td></td>
</tr>
<tr>
<td>PE-I 37B-2 — Tai Chi Chuan — Intermediate</td>
<td>.5 Unit</td>
<td>27 hours</td>
<td>Intermediate Tai Chi Chuan fundamentals and principles. Includes instruction in a traditional long form. Students who repeat this course will improve skills through further instruction and practice.</td>
<td></td>
</tr>
<tr>
<td>PE-I 37C — Tai Chi Chuan — Advanced</td>
<td>1 Unit</td>
<td>54 hours</td>
<td>Intermediate Tai Chi Chuan fundamentals and principles. Includes instruction in a traditional long form. Students who repeat this course will improve skills through further instruction and practice.</td>
<td></td>
</tr>
</tbody>
</table>
Course Descriptions

PE-I 37C-2 — Tai Chi Chuan – Advanced .5 Unit
(May be taken four times for credit.) Degree Appropriate, CSU, UC
(May be taken for option of letter grade or Credit/No Credit.)
36 hours activity.
Instruction and practice for the experienced Tai Chi Chuan practitioner. Emphasis will be on the sword form. Students who repeat this course will improve skills through further instruction and practice.

PE-I 38 — Skiing Skills 1 Unit
(May be taken four times for credit.) Degree Appropriate, CSU, UC
(May be taken for option of letter grade or Credit/No Credit.)
54 hours activity.
Fundamentals of Alpine skiing, from the novice to the expert. Includes the purchase, care and use of equipment, conditioning methods, mountain procedures and safety. Ski trips mandatory and are at student expense. Students who repeat this course will improve skills through further instruction and practice.

PE-I 40A — Tennis – Beginning 1 Unit
(May be taken for option of letter grade or Credit/No Credit.)
54 hours activity.
Beginning tennis fundamentals and techniques. Students who repeat this course will improve skills through further instruction and practice.

PE-I 40A-2 — Tennis – Beginning .5 Unit
(May be taken four times for credit.) Degree Appropriate, CSU, UC
(May be taken for option of letter grade or Credit/No Credit.)
36 hours activity.
Beginning tennis fundamentals and techniques. Students who repeat this course will improve skills through further instruction and practice.

PE-I 40B — Tennis – Intermediate 1 Unit
(May be taken for option of letter grade or Credit/No Credit.)
54 hours activity.
Intermediate tennis techniques and strategies for the individual who has previous experience in instruction in tennis. Students who repeat this course will improve skills through further instruction and practice.

PE-I 40B-2 — Tennis – Intermediate .5 Unit
(May be taken four times for credit.) Degree Appropriate, CSU, UC
(May be taken for option of letter grade or Credit/No Credit.)
36 hours activity.
Intermediate tennis techniques and strategies for the individual who has previous experience and instruction in tennis. Students who repeat this course will improve skills through further instruction and practice.

PE-I 40C — Tennis – Advanced 1 Unit
(May be taken for option of letter grade or Credit/No Credit.)
54 hours activity.
Advanced tennis techniques and strategies for the experienced player. Students who repeat this course will improve skills through further instruction and practice.

PE-I 40C-2 — Tennis – Advanced .5 Unit
(May be taken four times for credit.) Degree Appropriate, CSU, UC
(May be taken for option of letter grade or Credit/No Credit.)
36 hours activity.
Advanced tennis techniques and strategies for the experienced player. Students who repeat this course will improve skills through further instruction and practice.

PE-I 44 — Track and Field 1 Unit
(May be taken for option of letter grade or Credit/No Credit.)
54 hours activity.
Basic instruction, conditioning and training for the various track and field events. Students who repeat this course will improve skills through further instruction and practice.

PE-I 44-2 — Track and Field .5 Unit
(May be taken four times for credit.) Degree Appropriate, CSU, UC
(May be taken for option of letter grade or Credit/No Credit.)
36 hours activity.
Basic instruction, conditioning and training for the various track and field events. Students who repeat this course will improve skills through further instruction and practice.

PE-I 48 — Wrestling 1 Unit
(May be taken for option of letter grade or Credit/No Credit.)
54 hours activity.
Wrestling skills, fundamentals and match competition. Students who repeat this course will improve skills through further instruction and practice.

PE-I 48-2 — Wrestling .5 Unit
(May be taken four times for credit.) Degree Appropriate, CSU, UC
(May be taken for option of letter grade or Credit/No Credit.)
36 hours activity.
Wrestling skills, fundamentals and match competition. Students who repeat this course will improve skills through further instruction and practice.

PE-I 50A — Yoga 1 Unit
(May be taken for option of letter grade or Credit/No Credit.)
54 hours activity.
Yoga instruction with major emphasis on practice of yoga asanas, proper breathing techniques and relaxation strategies. Students who repeat this course will improve skills through further instruction and practice.

PE-I 50A-2 — Yoga .5 Unit
(May be taken four times for credit.) Degree Appropriate, CSU, UC
(May be taken for option of letter grade or Credit/No Credit.)
36 hours activity.
Yoga instruction with major emphasis on practice of yoga asanas, proper breathing techniques and relaxation strategies. Students who repeat this course will improve skills through further instruction and practice.

PE-I 52-2 — Individual Sports .5 Unit
(May be taken four times for credit.) Degree Appropriate, CSU, UC
(May be taken for option of letter grade or Credit/No Credit.)
36 hours activity.
Individual sports technique enhancement. Includes cardiorespiratory, flexibility, muscle strength and endurance training modes. Students who repeat this course will improve skills through further instruction and practice.

PE-I 52 — Individual Sports 1 Unit
(May be taken for option of letter grade or Credit/No Credit.)
54 hours activity.
Individual sports technique enhancement. Includes cardiorespiratory, flexibility, muscle strength and endurance training modes. Students who repeat this course will improve skills through further instruction and practice.

PE-S 2 — Basketball 1 Unit
(May be taken for option of letter grade or Credit/No Credit.)
54 hours activity.
Basic skills, fundamentals, rules and strategies for team play in basketball. Students who repeat this course will improve skills through further instruction and practice.

PE-S 2-2 — Basketball .5 Unit
(May be taken four times for credit.) Degree Appropriate, CSU, UC
(May be taken for option of letter grade or Credit/No Credit.)
36 hours activity.
Basic skills, fundamentals, rules and strategies for team play in basketball. Students who repeat this course will improve skills through further instruction and practice.

PHYSICAL EDUCATION: TEAM SPORTS
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>PE-S 10</td>
<td>Soccer</td>
<td>1</td>
<td>Degree Appropriate, CSU, UC (May be taken for option of letter grade or Credit/No Credit.) 54 hours activity. Soccer skills, fundamentals and game play. Students who repeat this course will improve skills through further instruction and practice.</td>
</tr>
<tr>
<td>PE-S 12-2</td>
<td>Baseball</td>
<td>.5</td>
<td>Degree Appropriate, CSU, UC (May be taken for option of letter grade or Credit/No Credit.) 36 hours activity. Basic skills, rules and strategies for team play in baseball. Students who repeat this course will improve skills through further instruction and practice.</td>
</tr>
<tr>
<td>PE-S 13</td>
<td>Football</td>
<td>1</td>
<td>Degree Appropriate, CSU, UC (May be taken for option of letter grade or Credit/No Credit.) 54 hours activity. Basic skills, rules and strategies for team play in football. Students who repeat this course will improve skills through further instruction and practice.</td>
</tr>
<tr>
<td>PE-S 14-2</td>
<td>Football</td>
<td>.5</td>
<td>Degree Appropriate, CSU, UC (May be taken for option of letter grade or Credit/No Credit.) 36 hours activity. Basic skills, rules and strategies for team play in football. Students who repeat this course will improve skills through further instruction and practice.</td>
</tr>
<tr>
<td>PE-S 16</td>
<td>Softball</td>
<td>1</td>
<td>Degree Appropriate, CSU, UC (May be taken for option of letter grade or Credit/No Credit.) 36 hours activity. Basic skills, rules and strategies for team play in softball. Students who repeat this course will improve skills through further instruction and practice.</td>
</tr>
<tr>
<td>PE-S 18</td>
<td>Indoor Soccer</td>
<td>1</td>
<td>Degree Appropriate, CSU, UC (May be taken for option of letter grade or Credit/No Credit.) 54 hours activity. Indoor soccer skills, fundamentals and game play. Students who repeat this course will improve skills through further instruction and practice.</td>
</tr>
<tr>
<td>PE-S 19</td>
<td>Team Sports</td>
<td>1</td>
<td>Degree Appropriate, CSU, UC (May be taken for option of letter grade or Credit/No Credit.) 54 hours activity. Instruction in the skills, techniques, and strategies of volleyball. Students who repeat this course will improve skills through further instruction and practice.</td>
</tr>
<tr>
<td>PE-S 19-2</td>
<td>Team Sports</td>
<td>.5</td>
<td>Degree Appropriate, CSU, UC (May be taken for option of letter grade or Credit/No Credit.) 36 hours activity. Instruction in the skills, techniques, and strategies of volleyball. Students who repeat this course will improve skills through further instruction and practice.</td>
</tr>
<tr>
<td>PE-S 20</td>
<td>Volleyball – Beginning</td>
<td>1</td>
<td>Degree Appropriate, CSU, UC (May be taken for option of letter grade or Credit/No Credit.) 54 hours activity. Basic techniques and strategies of volleyball. Students who repeat this course will improve skills through further instruction and practice.</td>
</tr>
<tr>
<td>PE-S 20-2</td>
<td>Volleyball – Beginning</td>
<td>.5</td>
<td>Degree Appropriate, CSU, UC (May be taken for option of letter grade or Credit/No Credit.) 36 hours activity. Basic techniques and strategies of volleyball. Students who repeat this course will improve skills through further instruction and practice.</td>
</tr>
<tr>
<td>PE-S 21</td>
<td>Volleyball – Intermediate</td>
<td>1</td>
<td>Degree Appropriate, CSU, UC (May be taken for option of letter grade or Credit/No Credit.) 54 hours activity. 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.</td>
</tr>
<tr>
<td>PE-S 21-2</td>
<td>Volleyball – Intermediate</td>
<td>.5</td>
<td>Degree Appropriate, CSU, UC (May be taken for option of letter grade or Credit/No Credit.) 36 hours activity. 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.</td>
</tr>
<tr>
<td>PE-S 22</td>
<td>Volleyball – Advanced</td>
<td>1</td>
<td>Degree Appropriate, CSU, UC (May be taken for option of letter grade or Credit/No Credit.) 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.</td>
</tr>
<tr>
<td>PE-S 22-2</td>
<td>Volleyball – Advanced</td>
<td>.5</td>
<td>Degree Appropriate, CSU, UC (May be taken for option of letter grade or Credit/No Credit.) 36 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.</td>
</tr>
<tr>
<td>PE-S 23</td>
<td>Roller Hockey</td>
<td>1</td>
<td>Degree Appropriate, CSU, UC (May be taken for option of letter grade or Credit/No Credit.) 54 hours activity. Fundamentals of roller hockey will be presented. Includes basic technique, rules, strategy, and game play. Students who repeat this course will improve skills through further instruction and practice.</td>
</tr>
<tr>
<td>PE-S 23-2</td>
<td>Roller Hockey</td>
<td>.5</td>
<td>Degree Appropriate, CSU, UC (May be taken for option of letter grade or Credit/No Credit.) 36 hours activity. Fundamentals of roller hockey will be presented. Includes basic technique, rules, strategy, and game play. Students who repeat this course will improve skills through further instruction and practice.</td>
</tr>
</tbody>
</table>
# Course Descriptions

## Physical Education: Theory

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Lecture Hours</th>
<th>Degree Appropriate</th>
<th>Advisory: Eligibility for ENGL 68</th>
</tr>
</thead>
<tbody>
<tr>
<td>PE 3</td>
<td>First Aid and CPR</td>
<td>2</td>
<td>54</td>
<td>Degree Appropriate, CSU, UC</td>
<td>Yes</td>
</tr>
<tr>
<td>PE 5</td>
<td>Advanced First Aid/CPR/Response</td>
<td>3</td>
<td>54</td>
<td>Degree Appropriate, CSU</td>
<td>Yes</td>
</tr>
<tr>
<td>PE 10</td>
<td>Fundamentals of Sports</td>
<td>2</td>
<td>36</td>
<td>Degree Appropriate, CSU, UC</td>
<td>No</td>
</tr>
<tr>
<td>PE 13</td>
<td>Sports Officiating</td>
<td>3</td>
<td>54</td>
<td>Degree Appropriate, CSU</td>
<td>No</td>
</tr>
<tr>
<td>PE 15</td>
<td>Administration of Fitness Programs</td>
<td>2</td>
<td>36</td>
<td>Degree Appropriate</td>
<td>No</td>
</tr>
<tr>
<td>PE 17</td>
<td>Introduction to Physical Education</td>
<td>3</td>
<td>54</td>
<td>Degree Appropriate, CSU, UC</td>
<td>No</td>
</tr>
<tr>
<td>PE 19</td>
<td>Introduction to Care/Prevention of Activity/Injuries</td>
<td>3</td>
<td>54</td>
<td>Degree Appropriate, CSU, UC</td>
<td>No</td>
</tr>
<tr>
<td>PE 24</td>
<td>Kinesiology</td>
<td>2</td>
<td>Degree Appropriate</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>PE 33</td>
<td>Fitness Assessment and Healthy Lifestyles</td>
<td>.5</td>
<td>9</td>
<td>Degree Appropriate</td>
<td>No</td>
</tr>
<tr>
<td>PE 34</td>
<td>Fitness for Living</td>
<td>3</td>
<td>54</td>
<td>Degree Appropriate, CSU, UC</td>
<td>No</td>
</tr>
<tr>
<td>PE 38</td>
<td>Physiology of Exercise for Fitness</td>
<td>3</td>
<td>54</td>
<td>Degree Appropriate</td>
<td>No</td>
</tr>
<tr>
<td>PE 39</td>
<td>Techniques of Fitness Testing</td>
<td>2</td>
<td>Degree Appropriate</td>
<td>No</td>
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<tr>
<td>PE 40</td>
<td>Techniques of Teaching Cardiovascular Exercise</td>
<td>2</td>
<td>36</td>
<td>Degree Appropriate</td>
<td>No</td>
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<tr>
<td>PE 41</td>
<td>Techniques of Teaching Weight Training</td>
<td>2</td>
<td>Degree Appropriate</td>
<td>No</td>
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<tr>
<td>PE 42</td>
<td>Theory of Coaching</td>
<td>3</td>
<td>54</td>
<td>Degree Appropriate, CSU, UC</td>
<td>No</td>
</tr>
<tr>
<td>PE 48</td>
<td>Lifeguard Training</td>
<td>3</td>
<td>54</td>
<td>Degree Appropriate, CSU, UC</td>
<td>No</td>
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<tr>
<td>PE 50</td>
<td>Mt. Sac Fire Academy Physical Ability</td>
<td>.5</td>
<td>Entrance Exam</td>
<td>Non-Degree Credit</td>
<td>No</td>
</tr>
<tr>
<td>PE 81</td>
<td>Work Experience for Coaching</td>
<td>2</td>
<td>Degree Appropriate</td>
<td>No</td>
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</tr>
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## Physical Education: Activity

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Lecture Hours</th>
<th>Degree Appropriate</th>
<th>Advisory: Eligibility for ENGL 68</th>
</tr>
</thead>
<tbody>
<tr>
<td>PE 4</td>
<td>Techniques of Teaching Weight Training</td>
<td>2</td>
<td>Degree Appropriate</td>
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<td>PE 8</td>
<td>Work Experience for Coaching</td>
<td>2</td>
<td>Degree Appropriate</td>
<td>No</td>
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</tr>
</tbody>
</table>

For more information, please visit the Mt. San Antonio College website or contact the appropriate department for further details.
PHYS 2AG — General Physics 4 Units
Spring Semester
Degree Appropriate, CSU, UC
PHYS 2AG + 2BG = CAN PHYS SEQ A
54 hours lecture.
54 hours lab.
Prerequisite: PHYS 2AG or equivalent
A continuation of Physics 2AG. Includes electricity and magnetism
(including DC and AC circuits) geometrical and physical optics, relativity,
quantum physics, atomic and nuclear physics. Laboratory includes use
of computers to analyze data and simulate electric circuits.

PHYS 4A — Engineering Physics 5 Units
(CAN PHYS 8)
Degree Appropriate, CSU, UC
PHYS 4A + 4B + 4C = CAN PHYS SEQ B
72 hours lecture.
72 hours lab.
Prerequisite: PHYS 2AG or one year of high school physics (C or better)
Corequisite: MATH 181 (May have been taken previously)
Studies linear and rotational motion, forces, work, energy, oscillations,
gravitation, properties of solids, and waves. Includes laboratory
experience with significant use of computers for data acquisition
and analysis.

PHYS 4B — Engineering Physics 5 Units
(CAN PHYS 12)
Degree Appropriate, CSU, UC
PHYS 4A + 4B + 4C = CAN PHYS SEQ B
72 hours lecture.
72 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
(CAN PHYS 14)
Degree Appropriate, CSU, UC
PHYS 4A + 4B + 4C = CAN PHYS SEQ B
72 hours lecture.
72 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.
Course Descriptions

PHYS 99 — Special Projects in Physics 2 Units
(May be taken four times for credit.) Degree Appropriate, CSU
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. Student must have instructor's authorization before enrolling in this class. Students who repeat this course will make with the instructor individual contracts of a more advanced nature to ensure that proficiencies are enhanced.

POLITICAL SCIENCE

POLI 1 — Political Science 3 Units
(CAN GOVT 2) Degree Appropriate, 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
(CAN GOVT 2) Degree Appropriate, CSU, UC
54 hours lecture. Prerequisite: Acceptance into the Honors Program Principles and problems of government with particular emphasis on national government in the United States. This course satisfies the requirement for a course in the Constitution of the United States and the principles of State and local government as required by Title 5 of the California Administrative Code. An honors course designed to provide an enriched experience. Students may not receive credit for both POLI 1 and POLI 1H.

POLI 2 — Political Science 3 Units
54 hours lecture. Degree Appropriate, CSU, UC
Prerequisite: POLI 1 or POLI 1H Advisory: Eligibility for ENGL 1A
Comparative study of constitutional principles, governmental institutions, political processes, and ideologies in selected countries.

POLI 5 — Political Science Theory 3 Units
54 hours lecture. Degree Appropriate, CSU, UC
Prerequisite: POLI 1 or POLI 1H Advisory: Eligibility for ENGL 1A
Emphasizes political science concepts and theories, institutions, political change, and dynamics. Designed to prepare students majoring in political science for further study in the discipline by adequate background preparation in the overall study of politics.

POLI 9 — Introduction to International Relations 3 Units
54 hours lecture. Degree Appropriate, CSU, UC
Advisory: Eligibility for ENGL 1A Acquaints students with the historical and political background of international relations. Attention is given to world politics, international organization and America's place in world affairs.

POLI 25 — Politics of the Mexican American 3 Units
54 hours lecture. Degree Appropriate, CSU, UC
Advisory: Eligibility for ENGL 68
Studies the impact that national, state and local governments have on the nation's largest ethnic minority (the Latino community). Examines the national state constitutions and the impact they have had on the Hispanic community as a whole (not just Mexican Americans).

POLI 35 — African American Politics 3 Units
54 hours lecture. Degree Appropriate, CSU, UC
Advisory: Eligibility for ENGL 68
Examines the methods and strategies employed by African-Americans in their quest to gain equal access and participation in American institutions. This course satisfies the requirement for a course in the Constitution of the United States and the principles of State and local government as required by Title 5 of the California Administrative Code.

POLI 35 — African American Politics 3 Units
54 hours lecture. Degree Appropriate, CSU, UC
Advisory: Eligibility for ENGL 68
Examines the methods and strategies employed by African-Americans in their quest to gain equal access and participation in American institutions. This course satisfies the requirement for a course in the Constitution of the United States and the principles of State and local government as required by Title 5 of the California Administrative Code.

PSYCHOLOGY

PSYC 1A — Introduction to Psychology 3 Units
(CAN PSY 2) Degree Appropriate, CSU, UC
54 hours lecture.
Prerequisite: Eligibility for ENGL 68
Develops an understanding of the basic principles of behavior and mental processes. The subject matter and research methods of scientific psychology are presented. Topics include: history, biopsychology, sensation, perception, states of consciousness, learning, memory, forgetting, language, cognition, life-span development, gender, sexuality, stress, health, motivation, emotions, social psychology, abnormality, treatment and social and diversity issues.

PSYC 1AH — Introduction to Psychology – Honors 3 Units
(CAN PSY 2) Degree Appropriate, CSU, UC
54 hours lecture.
Prerequisite: Acceptance into the Honors Program
Biopsychology: sensation, perception, states of consciousness, learning, memory, forgetting, language, cognition, life-span development, personality, stress, health, motivation, emotions, psychopathology, psychotherapeutic approaches, and social factors. An honors course designed to provide an enriched experience.

PSYC 1B — Biological Psychology 3 Units
(CAN PSY 10) Degree Appropriate, CSU, UC
54 hours lecture. Prerequisite: PSYC 1A or PSYC 1AH
Advisory: Eligibility for ENGL 1A
Biological mechanisms of behavior; introduction of evolution and genetics with emphasis on neuronal and synaptic transmission. Develops a conceptual framework and awareness of the scientific method. Stresses specific methods of investigation for the discipline.

PSYC 3 — Introduction to Research Methods in Psychology 4 Units
(CAN PSY 8) Degree Appropriate, CSU, UC
54 hours lecture. 54 hours lab.
Prerequisite: PSYC 1A or PSYC 1AH and PSYC 10 or MATH 110 or MATH 110H
Advisory: ENGL 1A
Research methods in the area of social science, especially in the discipline of psychology. American Psychological Association publication style taught and used with lab experience. Includes systematic observation, survey development, correlational studies, and design, execution and analysis of experiments.

PSYC 5 — Psychology of Reasoning and Problem Solving 3 Units
54 hours lecture. Degree Appropriate, CSU, UC
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
(CAN PSY 6)  Degree Appropriate, CSU, UC
54 hours lecture.
54 hours lab.
Prerequisite: PSYC 1A or SOC 1 and eligibility for MATH 110
Statistical principles of the behavioral sciences emphasizes research
design, scales of measurement, distributions, graphing, descriptive
statistics, measures of central tendency, measures of variability, z-test,
independent and dependent t-tests, inferential statistics, confidence
intervals, linear correlations and regression, and analysis of variance,
including multivariate factorial designs and chi square analyses.
Statistical analyses through the use of computerized statistical packages
are interpreted through lab experience.

PSYC 14 — Developmental Psychology  3 Units
54 hours lecture.  Degree Appropriate, CSU, UC
Advisory: Eligibility for ENGL 68
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.  Degree Appropriate, CSU, UC
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.  Degree Appropriate, CSU, UC
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.  Degree Appropriate, CSU, UC
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.  Degree Appropriate, CSU, UC
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.  Degree Appropriate, CSU
Emphasis on comprehension and application of psychological principles
to interpersonal relationships, personal growth, sexuality, vocation,
marrige, 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.  Degree Appropriate
Provides a basic overview of the helping processes. Stresses application
counseling techniques, 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.  Degree Appropriate
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.)  Degree Appropriate, CSU
36 hours lecture.
To offer selected students recognition for their academic interest and
ability and the opportunity to explore their disciplines to greater depth,
the various departments offer Special Project courses. The content of
each course and the methods of study vary from semester to semester and depend on the particular project under consideration.
Students repeating this course will make individual contracts of a
more advanced nature with the instructor to ensure that proficiencies are enhanced.

RADIO & TELEVISION

R-TV 01 — Introduction to Broadcasting  3 Units
54 hours lecture.  Degree Appropriate, CSU
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
54 hours lecture.  Degree Appropriate, CSU
Corequisite: R-TV 01 and R-TV 11A
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 03 — Sportscasting and Reporting  1.5 Units
(May be taken two times for credit.)  Degree Appropriate
27 hours lecture.
Corequisite: R-TV 01 and R-TV 11A
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
(May be taken two times for credit.)  Degree Appropriate
54 hours lecture.
Corequisite: R-TV 01, R-TV 05, and R-TV 11A
Students will learn how to research and cover various news events
including working with police and other emergency personnel, inter-
viewing techniques and story developments. Emphasis will be placed on
legal and ethical issues concerning news coverage. Students who repeat
this course will improve skills through further instruction and practice.

R-TV 05 — Radio-TV Newswriting  3 Units
(May be taken two times for credit.)  Degree Appropriate
54 hours lecture.
Corequisite: R-TV 01
Writing, editing and reporting radio and TV news, utilizing the
Associated Press Wire Service, AP Newsboss software. Students will
rewrite news wire copy, as well as create stories from interviews and
from covering news events, including the incorporation and selection of
sound bites from actualities. Emphasis will be on factual and concise
content and the ability to work under deadline.
<table>
<thead>
<tr>
<th>Course Description</th>
<th>Units</th>
<th>Lecture Hours</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>R-TV 06 — Broadcast Traffic Reporting</td>
<td>1.5</td>
<td>27</td>
<td><strong>Corequisite:</strong> R-TV 01 (May have been taken previously)&lt;br&gt;The history and development of the techniques involved in radio and television traffic reporting through lecture and hands-on practice. Students will learn how to interpret and read police codes as they relate to traffic, accidents, and emergency situations and understand both broadcast rules and liabilities as they apply to traffic reporting. Emphasis on both the production and the delivery of reports. Students will work at the college radio station one hour per week delivering traffic reports during news broadcasts.</td>
</tr>
<tr>
<td>R-TV 07 — Commercial Voice-Overs</td>
<td>3</td>
<td>54</td>
<td><strong>Advisory:</strong> R-TV 01&lt;br&gt;Covers the development of voices for radio and television commercials, narrations, and animation. Students also learn how to effectively audition, work with agents and agencies, and understand voice-over contracts.</td>
</tr>
<tr>
<td>R-TV 08 — KSAK Radio Studio Operations</td>
<td>2</td>
<td>36</td>
<td><strong>Corequisite:</strong> R-TV 01 (May have been taken previously)&lt;br&gt;A training course for positions at Mt. SAC’s on-campus radio station, KSAK. Includes programming, production procedures, news, DJ promotions, and FCC rules and regulations. Recommended for students wanting to become a part of KSAK and also offers an excellent overview of the components of a professional radio station. Students who repeat this course will improve skills through further instruction and practice.</td>
</tr>
<tr>
<td>R-TV 09 — Broadcast Sales and Promotion</td>
<td>3</td>
<td>54</td>
<td><strong>Corequisite:</strong> R-TV 01 (May have been taken previously)&lt;br&gt;Covers the strategies and legalities of advertising time sales for radio and television including FCC requirements, demographic targeting, marketing strategies, and working with agencies. The course also covers promotions, including the creation of contests and promotional campaigns.</td>
</tr>
<tr>
<td>R-TV 10 — Radio Management and Programming</td>
<td>3</td>
<td>54</td>
<td><strong>Corequisite:</strong> R-TV 01 (May have been taken previously)&lt;br&gt;An overview of the various techniques of programming a radio station, including various formats of music, news, talk, and sports. Students will also look at the role of management at a station including budgeting, unions, ratings and FCC responsibilities.</td>
</tr>
</tbody>
</table>
R-TV 22 — Editing for Film and Television 3 Units
54 hours lecture. Degree Appropriate
Aesthetics and use of non-linear editing software for film and television.

R-TV 26 — Current Issues in Entertainment Law 3 Units
Spring Semester Degree Appropriate
54 hours lecture.
Advisory: R-TV 01 or BUSL 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
Spring Semester Degree Appropriate
(May be taken two times for credit.)
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. Students who repeat this course will improve skills through further instruction and practice.

R-TV 30 — RTV30 Introduction to Careers in Entertainment 2 Units
32 hours lecture. Non-Degree Credit
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 DJ, news anchor/reporter, sports reporter, commercial voice-over artist, production director, writer, producer and director.

R-TV 90T — Topics in Radio-Television 3 Units
(May be taken four times for credit.) Degree Appropriate
54 hours lecture. Corequisite: R-TV 01 and any other R-TV units
Explores various topics in radio, television and related entertainment industries. Topics will vary for each topic course.

R-TV 95C — Radio Station Activities 3 Units
Spring Semester Degree Appropriate
(May be taken four times for credit.)
162 hours lab. Prerequisite: R-TV 01, R-TV 02, and 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, KSAK. Students may select roles in the radio operation involving on-air announcing, production, programming and news. Students who repeat this course will improve skills through further instruction and practice.

R-TV 97A — Radio/Entertainment Industry Seminar 1 Unit
(May be taken four times for credit.) Degree Appropriate
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.

R-TV 97B — Radio/Internet Radio Internship 1 Unit
(May be taken four times for credit.) Degree Appropriate
75 hours lab. Prerequisite: R-TV 01 and any other 3 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 Unit
(May be taken four times for credit.) Degree Appropriate
75 hours lab. Prerequisite: R-TV 01 and any other 3 R-TV units Corequisite: R-TV 97A
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.

R-TV 97D — KSAK Radio/Internet Radio Internship 2 Units
(May be taken four times for credit.) Degree Appropriate
75 hours lab. Prerequisite: R-TV 01 and any other 3 R-TV units Corequisite: R-TV 97A
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.

R-TV 97E — Radio/Entertainment Industry Internship 1 Unit
(May be taken four times for credit.) Degree Appropriate
75 hours lab. Prerequisite: R-TV 01 and any other 3 R-TV units Corequisite: R-TV 97A
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.

R-TV 98A — Television and Film/Entertainment Industry Internship 1 Unit
(May be taken two times for credit.) Degree Appropriate
75 hours lab. Prerequisite: R-TV 01 and R-TV 19A Corequisite: R-TV 98B
Provides the student with actual on-the-job experience in television or film production 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 98B — Television and Film/Entertainment Industry Internship 1 Unit
(May be taken two times for credit.) Degree Appropriate
75 hours lab. Prerequisite: R-TV 01 and R-TV 19A Corequisite: R-TV 98A
Provides the student with actual on-the-job experience in television or film production 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 99 — Radio/TV Special Projects 2 Units
(May be taken four times for credit.) Degree Appropriate
36 hours lecture. Prerequisite: Completion of six R-TV units
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.

RAD 30 — Radiographic Pathology 1.5 Units
Fall Semester Degree Appropriate
24 hours lecture. Corequisite: RAD 63
Concepts of disease and pathological processes demonstrated in diagnostic radiography; etiology; diagnosis, and prognosis of systemic disease processes.
## Course Descriptions

### RAD 50 — Radiologic Technology 3 Units

**Spring Semester**  
Degree Appropriate, CSU  
54 hours lecture.  
Prerequisite: Admission to the Radiologic Technology Program, MATH 51, and CHEM 10 or equivalent  
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 4.5 Units

**Fall Semester**  
Degree Appropriate, CSU  
236 hours lab.  
Prerequisite: RAD 61A

Practical application of radiographic theories and principles in a hospital setting under direct supervision of clinical personnel and college instructors. Emphasis on abdomen and thoracic viscera, spine, common contrast exams, and generalized skull radiography.

### RAD 52B — Techniques of Radiologic Technology 2.5 Units

**Winter Semester**  
Degree Appropriate, CSU  
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 instructors. Emphasis on upper and lower limbs.

### RAD 53 — Techniques of Radiologic Technology 5 Units

**Spring Semester**  
Degree Appropriate, CSU  
256 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

**Summer Semester**  
Degree Appropriate, CSU  
18 hours lecture.  
Prerequisite: RAD 50, MEDI 90  
Corequisite: RAD 61A

Concepts of radiation, fundamentals of physics, the atom, electromagnetic radiation, electricity and magnetism, electromagnetism, the X-ray machine and fluoroscopic equipment and procedures.

### RAD 55A — Techniques of Radiologic Technology 7 Units

**Spring Semester**  
Degree Appropriate, CSU  
140 hours lab.  
Prerequisite: RAD 62A

Advanced analysis of the technical performance of radiographic technology.

### RAD 55B — Techniques of Radiologic Technology 2.5 Units

**Winter Semester**  
Degree Appropriate, CSU  
140 hours lab.  
Prerequisite: RAD 55A

Continued experience in a hospital setting under guidance of clinical personnel and college instructors. Emphasis on skull, portable radiography, surgical studies and the development of nursing skills as it relates to radiologic technology.

### RAD 56 — Techniques of Radiologic Technology 7 Units

**Spring Semester**  
Degree Appropriate, CSU  
18 hours lecture.  
Prerequisite: RAD 55A  
Corequisite: RAD 62A

Practical experience in an affiliated hospital under 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 57 — Techniques of Radiologic Technology 4 Units

**Summer Semester**  
Degree Appropriate, CSU  
236 hours lab.  
Prerequisite: RAD 55A  
Corequisite: RAD 62A

Continued experience in a hospital setting under guidance of clinical personnel and college instructors. Emphasis on skull, portable radiography, surgical studies and the development of nursing skills as it relates to radiologic technology.

### RAD 58 — Theory of Radiologic Technology 3 Units

**Fall Semester**  
Degree Appropriate, CSU  
72 hours lecture.  
Prerequisite: RAD 52A, RAD 61B, RAD 61C

Analysis of the technical performance of producing radiographs of the chest, upper and lower extremities, and abdomen. Includes quality assurance and special equipment/accessories and procedures.

### RAD 59 — Radiologic Technology Seminar 1 Unit

**Fall Semester**  
Degree Appropriate, CSU  
18 hours lab.  
Corequisite: RAD 61A

Discussion of professional and ethical issues in the radiologic technology profession.

### RAD 61A — Theory of Radiologic Technology 4 Units

**Fall Semester**  
Degree Appropriate, CSU  
72 hours lecture.  
Prerequisite: RAD 50, MEDI 90  
Corequisite: RAD 52A, RAD 61B, RAD 61C

Advanced analysis of the technical performance of radiographic technology.

### RAD 61B — Radiographic Positioning 3 Units

**Fall Semester**  
Degree Appropriate, CSU  
54 hours lecture.  
Corequisite: RAD 61A

Analysis of the technical performance of producing radiographs of the chest, upper and lower extremities, and abdomen. Includes quality assurance and special equipment/accessories and procedures.

### RAD 61C — Radiologic Technology Seminar 1 Unit

**Fall Semester**  
Degree Appropriate, CSU  
18 hours lecture.  
Corequisite: RAD 61A

Discussion of professional and ethical issues in the radiologic technology profession.

### RAD 62A — Theory of Radiologic Technology 4 Units

**Spring Semester**  
Degree Appropriate, 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 62B — Radiographic Positioning 3 Units

**Spring Semester**  
Degree Appropriate, CSU  
54 hours lecture.  
Corequisite: RAD 62A

Analysis of the technical performance of producing radiographs of the chest, upper and lower extremities, and abdomen. Includes quality assurance and special equipment/accessories and procedures.

### RAD 62C — Radiologic Technology Seminar 1 Unit

**Spring Semester**  
Degree Appropriate, CSU  
18 hours lecture.  
Corequisite: RAD 62A

Discussion of professional and ethical issues in the radiologic technology profession.

### RAD 63A — Theory of Radiologic Technology 4 Units

**Fall Semester**  
Degree Appropriate, CSU  
72 hours lecture.  
Prerequisite: RAD 50, MEDI 90  
Corequisite: RAD 52A, RAD 61B, RAD 61C

Advanced analysis of the technical performance of radiographic technology.

### RAD 63B — Radiographic Positioning 3 Units

**Fall Semester**  
Degree Appropriate, CSU  
54 hours lecture.  
Corequisite: RAD 63A

Analysis of the technical performance of producing radiographs of the chest, upper and lower extremities, and abdomen. Includes quality assurance and special equipment/accessories and procedures.

### RAD 63C — Radiologic Technology Seminar 1 Unit

**Fall Semester**  
Degree Appropriate, CSU  
18 hours lecture.  
Corequisite: RAD 63A

Discussion of professional and ethical issues in the radiologic technology profession.

### RAD 64A — Theory of Radiologic Technology 4 Units

**Fall Semester**  
Degree Appropriate, 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 64B — Radiographic Positioning 3 Units

**Fall Semester**  
Degree Appropriate, CSU  
54 hours lecture.  
Corequisite: RAD 64A

Analysis of the technical performance of producing radiographs of the chest, upper and lower extremities, and abdomen. Includes quality assurance and special equipment/accessories and procedures.

### RAD 64C — Radiologic Technology Seminar 1 Unit

**Fall Semester**  
Degree Appropriate, CSU  
18 hours lecture.  
Corequisite: RAD 64A

Discussion of professional and ethical issues in the radiologic technology profession.

### RAD 65A — Theory of Radiologic Technology 4 Units

**Fall Semester**  
Degree Appropriate, CSU  
72 hours lecture.  
Prerequisite: RAD 50, MEDI 90  
Corequisite: RAD 52A, RAD 61B, RAD 61C

Advanced analysis of the technical performance of radiographic technology.

### RAD 65B — Radiographic Positioning 3 Units

**Fall Semester**  
Degree Appropriate, CSU  
54 hours lecture.  
Corequisite: RAD 65A

Analysis of the technical performance of producing radiographs of the chest, upper and lower extremities, and abdomen. Includes quality assurance and special equipment/accessories and procedures.

### RAD 65C — Radiologic Technology Seminar 1 Unit

**Fall Semester**  
Degree Appropriate, CSU  
18 hours lecture.  
Corequisite: RAD 65A

Discussion of professional and ethical issues in the radiologic technology profession.

### RAD 66A — Theory of Radiologic Technology 4 Units

**Fall Semester**  
Degree Appropriate, CSU  
72 hours lecture.  
Prerequisite: RAD 50, MEDI 90  
Corequisite: RAD 52A, RAD 61B, RAD 61C

Advanced analysis of the technical performance of radiographic technology.

### RAD 66B — Radiographic Positioning 3 Units

**Fall Semester**  
Degree Appropriate, CSU  
54 hours lecture.  
Corequisite: RAD 66A

Analysis of the technical performance of producing radiographs of the chest, upper and lower extremities, and abdomen. Includes quality assurance and special equipment/accessories and procedures.

### RAD 66C — Radiologic Technology Seminar 1 Unit

**Fall Semester**  
Degree Appropriate, CSU  
18 hours lecture.  
Corequisite: RAD 66A

Discussion of professional and ethical issues in the radiologic technology profession.

### RAD 67A — Theory of Radiologic Technology 4 Units

**Fall Semester**  
Degree Appropriate, CSU  
72 hours lecture.  
Prerequisite: RAD 50, MEDI 90  
Corequisite: RAD 52A, RAD 61B, RAD 61C

Advanced analysis of the technical performance of radiographic technology.

### RAD 67B — Radiographic Positioning 3 Units

**Fall Semester**  
Degree Appropriate, CSU  
54 hours lecture.  
Corequisite: RAD 67A

Analysis of the technical performance of producing radiographs of the chest, upper and lower extremities, and abdomen. Includes quality assurance and special equipment/accessories and procedures.

### RAD 67C — Radiologic Technology Seminar 1 Unit

**Fall Semester**  
Degree Appropriate, CSU  
18 hours lecture.  
Corequisite: RAD 67A

Discussion of professional and ethical issues in the radiologic technology profession.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Hours</th>
<th>Prerequisites/Advisory</th>
<th>Semesters Available</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>RAD 63</td>
<td>Theory of Radiologic Technology</td>
<td>4</td>
<td>72</td>
<td>Degree Appropriate, CSU</td>
<td>Fall, Spring</td>
<td>Special radiographic studies, contrast media usage and radiographic pathology. Includes principles of radiation protection and radiobiology.</td>
</tr>
<tr>
<td>RAD 64</td>
<td>Theory of Radiologic Technology</td>
<td>4</td>
<td>72</td>
<td>Degree Appropriate, CSU</td>
<td>Fall, Spring</td>
<td>Special radiographic studies, contrast media usage and radiographic pathology. Includes principles of radiation protection and radiobiology.</td>
</tr>
<tr>
<td>READ 65</td>
<td>Speed Reading: Methods and Applications</td>
<td>1</td>
<td>18</td>
<td>Degree Appropriate, CSU</td>
<td>Fall, Spring</td>
<td>Designed to increase reading speed, while maintaining comprehension of college-level material. Improves concentration and recall. Develops flexibility in reading rate.</td>
</tr>
<tr>
<td>READ 70</td>
<td>Improving Reading Comprehension</td>
<td>3</td>
<td>54</td>
<td>Degree Appropriate, CSU</td>
<td>Fall, Spring</td>
<td>Prerequisite: Satisfactory score on appropriate placement test. Introduction to reading, comprehension, and vocabulary strategies. Introduction to self-awareness of reading capabilities. Students who repeat this course will improve skills through further instruction and practice.</td>
</tr>
<tr>
<td>READ 80</td>
<td>Developing Reading Comprehension</td>
<td>3</td>
<td>54</td>
<td>Degree Appropriate, CSU</td>
<td>Fall, Spring</td>
<td>Prerequisite: READ 70 or satisfactory score on reading placement test. Further development of reading comprehension and vocabulary strategies including self-awareness of reading capabilities. Students who repeat this course will improve skills through further instruction and practice.</td>
</tr>
<tr>
<td>READ 90</td>
<td>Preparing for College Reading</td>
<td>3</td>
<td>54</td>
<td>Degree Appropriate, CSU</td>
<td>Fall, Spring</td>
<td>Prerequisite: READ 80 or satisfactory score on reading placement test. Prepares students for college textbook reading. Emphasizes understanding vocabulary and college level textbooks and comprehension. Students who repeat this course will improve skills through further instruction and practice.</td>
</tr>
<tr>
<td>READ 100</td>
<td>Analysis and Critical Reading</td>
<td>3</td>
<td>54</td>
<td>Degree Appropriate, CSU</td>
<td>Fall, Spring</td>
<td>Prerequisite: READ 90 or satisfactory score on reading placement test. Effective use of critical reading in a cross-disciplinary framework. Emphasis on the development of critical reading skills of interpretation, analysis and evaluation of academic, business, and technology readings.</td>
</tr>
<tr>
<td>RESD 50</td>
<td>Theory and Principles of Respiratory Therapy</td>
<td>2</td>
<td>36</td>
<td>Degree Appropriate, CSU</td>
<td>Fall, Spring</td>
<td>Prerequisite: RESD 51A, RESD 52. Advisory: Eligibility for ENGL 68. Fundamentals of reading comprehension, vocabulary development and phonics. Educational approaches include awareness of learning styles, motivation, levels of cognition and oral communication. Covers lesson planning and the methodologies of presenting lessons. In coordination with local elementary schools, students reinforce learned concepts through on-site tutoring as a service learning experience.</td>
</tr>
<tr>
<td>RESD 51A</td>
<td>Respiratory Therapy Science</td>
<td>4</td>
<td>54</td>
<td>Degree Appropriate, CSU</td>
<td>Fall, Spring</td>
<td>Corequisite: Admission to Respiratory Therapy Program. Basic principles of respiratory therapy equipment. Emphasis placed on methods of administration of therapy and application of specialized equipment in the clinical setting. Basic respiratory physiology and oxygen transport.</td>
</tr>
<tr>
<td>RESD 51B</td>
<td>Respiratory Therapy Science</td>
<td>4</td>
<td>54</td>
<td>Degree Appropriate, CSU</td>
<td>Fall, Spring</td>
<td>Prerequisite: RESD 50 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.</td>
</tr>
<tr>
<td>RESD 52</td>
<td>Pulmonary Anatomy and Physiology</td>
<td>3</td>
<td>54</td>
<td>Degree Appropriate, CSU</td>
<td>Fall, Spring</td>
<td>Corequisite: RESD 51A. Anatomical alterations of the lungs, etiology, overview of the cardiopulmonary clinical manifestations, and general management of commonly encountered cardiopulmonary diseases.</td>
</tr>
<tr>
<td>RESD 53</td>
<td>Cardiopulmonary Pathophysiology</td>
<td>3</td>
<td>54</td>
<td>Degree Appropriate, CSU</td>
<td>Fall, Spring</td>
<td>Corequisite: RESD 51B. Anatomical alterations of the lungs, etiology, overview of the cardiopulmonary clinical manifestations, and general management of commonly encountered cardiopulmonary diseases.</td>
</tr>
<tr>
<td>RESD 55</td>
<td>Adult Respiratory Intensive Care</td>
<td>3</td>
<td>54</td>
<td>Degree Appropriate, CSU</td>
<td>Fall, Spring</td>
<td>Corequisite: RESD 56B.1. 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.</td>
</tr>
<tr>
<td>RESD 56A</td>
<td>Techniques of Respiratory Therapy</td>
<td>2.5</td>
<td>144</td>
<td>Degree Appropriate, CSU</td>
<td>Summer</td>
<td>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 academic sessions 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.</td>
</tr>
</tbody>
</table>
Course Descriptions

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>RESD 56A-1</td>
<td>Techniques of Respiratory Therapy</td>
<td>5</td>
<td>Summer Semester Degree Appropriate, CSU (May be taken for Credit/No Credit only.) 288 hours lab.</td>
</tr>
<tr>
<td>RESD 56B</td>
<td>Techniques of Respiratory Therapy</td>
<td>6</td>
<td>Fall Semester Degree Appropriate, CSU (May be taken for Credit/No Credit only.) 384 hours lab.</td>
</tr>
<tr>
<td>RESD 56C</td>
<td>Techniques of Respiratory Therapy</td>
<td>2.5</td>
<td>Winter Semester Degree Appropriate, CSU (May be taken for Credit/No Credit only.) 144 hours lab.</td>
</tr>
<tr>
<td>RESD 56D</td>
<td>Techniques of Respiratory Therapy</td>
<td>6</td>
<td>Spring Semester Degree Appropriate, CSU (May be taken for Credit/No Credit only.) 238 hours lab.</td>
</tr>
</tbody>
</table>

Clinical practice 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 two 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 introduced.

**RESD 56A — Techniques of Respiratory Therapy 5 Units**
- Summer Semester
- Degree Appropriate, CSU
- (May be taken for Credit/No Credit only.)
- 288 hours lab.
- Prerequisite: RESD 51B
- Corequisite: RESD 57
- Clinical practice 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 two 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 introduced.

**RESD 56B — Techniques of Respiratory Therapy 6 Units**
- Fall Semester
- Degree Appropriate, CSU
- (May be taken for Credit/No Credit only.)
- 384 hours lab.
- Prerequisite: RESD 56A
- Corequisite: RESD 55, 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 two 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 introduced.

**RESD 56C — Techniques of Respiratory Therapy 2.5 Units**
- Winter Semester
- Degree Appropriate, CSU
- (May be taken for Credit/No Credit only.)
- 144 hours lab.
- Prerequisite: RESD 55
- 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 6 Units**
- Spring Semester
- Degree Appropriate, CSU
- (May be taken for Credit/No Credit only.)
- 384 hours lab.
- Prerequisite: RESD 56C
- Corequisite: RESD 59, RESD 61
- Clinical practice in the hospital setting. Application of therapeutic modalities and diagnostic procedures performed in the management and treatment of adult and pediatric intensive care patients. A six-week rotation is done in the neonatal intensive care unit. The student is expected to perform basic therapeutic modalities mastered in RESD 51A and RESD 51B and apply concepts learned in the first four semesters of the Respiratory Therapy Program.

**RESD 57 — Special Procedures for Respiratory Care 3 Units**
- Summer Semester
- Degree Appropriate, CSU
- 54 hours lecture.
- Corequisite: RESD 56A-1
- Basic application and skills development in respiratory pharmacology, bronchoscopy, blood drawing and analysis, chest drainage, IPPV, and mechanical ventilation.

**RESD 57A — Special Procedures for Respiratory Care 1.5 Units**
- Summer Semester
- Degree Appropriate, CSU
- 27 hours lecture.
- Corequisite: RESD 50
- Corequisite: RESD 56A
- Topics in the basic application of and skills development in bronchoscopy, blood drawing and analysis, chest drainage, microbiology for respiratory care, IPPV, and blood gas data analysis.

**RESD 57B — Special Procedures for Respiratory Care 1.5 Units**
- Winter Semester
- Degree Appropriate, CSU
- 27 hours lecture.
- Corequisite: 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**
- Fall Semester
- Degree Appropriate, CSU
- 54 hours lecture.
- Corequisite: RESD 56B-1, RESD 55
- Emphasizes neonatal pathophysiology, 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**
- Spring Semester
- Degree Appropriate, CSU
- 54 hours lecture.
- Corequisite: RESD 56C-1, RESD 61
- Advanced practitioner skills development pertinent to the application and function of respiratory therapy equipment with emphasis on the machine-patient interface.

**RESD 60 — Comprehensive Pulmonary Assessment 2 Units**
- Spring Semester
- Degree Appropriate, CSU
- 36 hours lecture.
- Corequisite: RESD 51B, 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**
- Spring Semester
- Degree Appropriate, CSU
- 54 hours lecture.
- Corequisite: RESD 56A-1, RESD 59
- Explores recently developed health care techniques and strategies for diagnostics, assessment, and therapeutics and their impact on respiratory therapists.

**RESD 90T — Topics in Respiratory Therapy 2.5 Units**
- Winter Semester
- Degree Appropriate
- (May be taken for Credit/No Credit only.)
- 133 hours lab.
- Prerequisite: RESD 55
- Explores various topics of Respiratory Therapy.

**SERVICE LEARNING**

**SL 1 — Service Learning/Seminar for Health Occupations 6 Units**
- May be taken four times for credit.
- Degree Appropriate, CSU
- 36 hours lecture.
- 216 hours lab.
- Prepares students with service experiences in health occupations. Examines and profiles community health care needs. Interfaces with various patient populations. Weekends and overnight labs to various areas within California may be offered. Out-of-class projects required. Students who repeat this course will improve skills through further instruction and practice.

**SL 2 — Linked Service Learning 1 Unit**
- May be taken for option of letter grade or Credit/No Credit.
- Degree Appropriate, CSU
- 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. Students who repeat this course will improve skills through further instruction and practice.

**SL 3 — Service Learning/Community Involvement 3 Units**
- May be taken four times for credit.
- Degree Appropriate, CSU
- (May be taken for option of letter grade or Credit/No Credit.)
- 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. 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>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>SL 4</td>
<td>Service Learning and Community Involvement</td>
<td>1</td>
<td>Degree Appropriate, CSU, UC&lt;br&gt;9 hours lecture. Students directly interface with community populations to identify needs and implement activities. Permits exploration of service-oriented career options. Enriches personal and career development through understanding of civic and social issues.</td>
</tr>
<tr>
<td>SL 99</td>
<td>Special Projects in Service Learning</td>
<td>1</td>
<td>Degree Appropriate, CSU, UC&lt;br&gt;36 hours lab. Students who repeat this course will improve skills through further instruction and practice.</td>
</tr>
<tr>
<td>SIGN 210</td>
<td>American Sign Language Structure</td>
<td>3</td>
<td>Degree Appropriate, CSU, UC&lt;br&gt;72 hours lecture. Further study of American Sign Language focused on development of comprehension skills, advanced grammatical structures with continued emphasis on expressive skills in narrative. Aspects of Deaf culture will be studied.</td>
</tr>
<tr>
<td>SIGN 201</td>
<td>Deaf Perspectives</td>
<td>3</td>
<td>Degree Appropriate, CSU, UC&lt;br&gt;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.</td>
</tr>
<tr>
<td>SIGN 202</td>
<td>American Deaf Culture</td>
<td>3</td>
<td>Degree Appropriate, CSU, UC&lt;br&gt;54 hours lecture. American Deaf cultural norms, values, mores and in stitutions.</td>
</tr>
<tr>
<td>SIGN 203</td>
<td>American Sign Language 3</td>
<td>4</td>
<td>Degree Appropriate, CSU, UC&lt;br&gt;72 hours lecture. Further study of American Sign Language focused on development of comprehension skills, advanced grammatical structures with continued emphasis on expressive skills in narrative. Aspects of Deaf culture will be studied.</td>
</tr>
<tr>
<td>SIGN 204</td>
<td>American Sign Language 4</td>
<td>4</td>
<td>Degree Appropriate, CSU, UC&lt;br&gt;72 hours lecture. Emphasis on expressive/conversational skills in American Sign Language along with continued focus on grammatical and cultural features.</td>
</tr>
<tr>
<td>SIGN 205</td>
<td>American Sign Language 5</td>
<td>4</td>
<td>Degree Appropriate, CSU, UC&lt;br&gt;(May be taken two times for credit.)&lt;br&gt;Prerequisite: SIGN 82B or SIGN 104&lt;br&gt;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. Students who repeat this course will improve skills through further instruction and practice.</td>
</tr>
<tr>
<td>SIGN 206</td>
<td>Fingerspelling</td>
<td>2</td>
<td>Degree Appropriate, CSU, UC&lt;br&gt;(May be taken for Credit/No Credit only.)&lt;br&gt;36 hours lecture. Prerequisite: SIGN 81 or SIGN 102&lt;br&gt;Offers students the opportunity to explore American Sign Language, American Deaf Culture or Sign Language Interpreting in greater depth. Content and methods of study vary from semester to semester and depend on the particular project under consideration.</td>
</tr>
<tr>
<td>SIGN 207</td>
<td>Deaf Perspectives</td>
<td>3</td>
<td>Degree Appropriate, CSU, UC&lt;br&gt;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.</td>
</tr>
<tr>
<td>SIGN 208</td>
<td>American Deaf Culture</td>
<td>3</td>
<td>Degree Appropriate, CSU, UC&lt;br&gt;54 hours lecture. American Deaf cultural norms, values, mores and in stitutions.</td>
</tr>
<tr>
<td>SIGN 209</td>
<td>American Sign Language 6</td>
<td>4</td>
<td>Degree Appropriate, CSU, UC&lt;br&gt;72 hours lecture. Further study of American Sign Language focused on development of comprehension skills, advanced grammatical structures with continued emphasis on expressive skills in narrative. Aspects of Deaf culture will be studied.</td>
</tr>
<tr>
<td>SIGN 210</td>
<td>American Sign Language Structure</td>
<td>3</td>
<td>Degree Appropriate, CSU, UC&lt;br&gt;54 hours lecture. Linguistic structure of American Sign Language, including phonology, morphology and syntax. Sociolinguistic issues will also be discussed.</td>
</tr>
<tr>
<td>SIGN 211</td>
<td>American Sign Language 7</td>
<td>4</td>
<td>Degree Appropriate, CSU, UC&lt;br&gt;72 hours lecture. 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.</td>
</tr>
<tr>
<td>SIGN 212</td>
<td>American Sign Language 8</td>
<td>4</td>
<td>Degree Appropriate, CSU, UC&lt;br&gt;72 hours lecture. Further study of American Sign Language focused on development of comprehension skills, advanced grammatical structures with continued emphasis on expressive skills in narrative. Aspects of Deaf culture will be studied.</td>
</tr>
<tr>
<td>SIGN 213</td>
<td>American Sign Language 9</td>
<td>4</td>
<td>Degree Appropriate, CSU, UC&lt;br&gt;72 hours lecture. Further study of American Sign Language focused on development of comprehension skills, advanced grammatical structures with continued emphasis on expressive skills in narrative. Aspects of Deaf culture will be studied.</td>
</tr>
<tr>
<td>SIGN 214</td>
<td>American Sign Language 10</td>
<td>3</td>
<td>Degree Appropriate, CSU, UC&lt;br&gt;54 hours lecture. American Deaf cultural norms, values, mores and in stitutions.</td>
</tr>
<tr>
<td>SIGN 215</td>
<td>American Sign Language 11</td>
<td>3</td>
<td>Degree Appropriate, CSU, UC&lt;br&gt;54 hours lecture. American Deaf cultural norms, values, mores and in stitutions.</td>
</tr>
<tr>
<td>SIGN 216</td>
<td>American Sign Language 12</td>
<td>3</td>
<td>Degree Appropriate, CSU, UC&lt;br&gt;54 hours lecture. American Deaf cultural norms, values, mores and in stitutions.</td>
</tr>
<tr>
<td>SIGN 217</td>
<td>American Sign Language 13</td>
<td>3</td>
<td>Degree Appropriate, CSU, UC&lt;br&gt;54 hours lecture. American Deaf cultural norms, values, mores and in stitutions.</td>
</tr>
<tr>
<td>SIGN 218</td>
<td>American Sign Language 14</td>
<td>3</td>
<td>Degree Appropriate, CSU, UC&lt;br&gt;54 hours lecture. American Deaf cultural norms, values, mores and in stitutions.</td>
</tr>
<tr>
<td>SIGN 219</td>
<td>American Sign Language 15</td>
<td>3</td>
<td>Degree Appropriate, CSU, UC&lt;br&gt;54 hours lecture. American Deaf cultural norms, values, mores and in stitutions.</td>
</tr>
<tr>
<td>SIGN 220</td>
<td>Translation: American Sign Language/English</td>
<td>3</td>
<td>Degree Appropriate, CSU, UC&lt;br&gt;54 hours lecture. Prerequisite: SIGN 82A or SIGN 103 and SIGN 86 or SIGN 210&lt;br&gt;Practice in translating between American Sign Language and English by comparing texts in both languages. Students who repeat this course will improve skills through further instruction and practice.</td>
</tr>
<tr>
<td>SIGN 221</td>
<td>Principles of Interpreting</td>
<td>3</td>
<td>Degree Appropriate, CSU, UC&lt;br&gt;54 hours lecture. Prerequisite: SIGN 82B or SIGN 104&lt;br&gt;Covers various aspects of interpreting theory and process including the history of sign language interpreting. Examines the interpreter’s role and ethical standards.</td>
</tr>
<tr>
<td>SIGN 222</td>
<td>Interpreting</td>
<td>4</td>
<td>Degree Appropriate, CSU, UC&lt;br&gt;72 hours lecture. Prerequisite: SIGN 82B or SIGN 104, SIGN 87 or SIGN 220, and SIGN 88 or SIGN 230&lt;br&gt;(May have been taken previously)&lt;br&gt;Advisory: SPCH 1A&lt;br&gt;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. Students who repeat this course will improve their skill and better prepare themselves for the next interpreting course.</td>
</tr>
<tr>
<td>SIGN 223</td>
<td>Advanced Interpreting</td>
<td>4</td>
<td>Degree Appropriate, CSU, UC&lt;br&gt;72 hours lecture. Prerequisite: SIGN 88A or SIGN 231&lt;br&gt;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. Students who repeat this course will improve their skill and better prepare themselves for entry-level job placement.</td>
</tr>
<tr>
<td>SIGN 224</td>
<td>Oral Transliteration</td>
<td>3</td>
<td>Degree Appropriate, CSU, UC&lt;br&gt;54 hours lecture. Prerequisite: SIGN 88B or SIGN 232&lt;br&gt;Develops and hones interpreting skills in supervised interpreting situations.</td>
</tr>
</tbody>
</table>
Course Descriptions

SOCIOLGY

SOC 1 — Sociology 3 Units
54 hours lecture. Degree Appropriate, CSU, UC
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 understanding group behavior, personality formation, social organization, and social change.

SOC 1H — Sociology – Honors 3 Units
54 hours lecture. Degree Appropriate, CSU, UC
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 understanding group behavior, personality formation, social organization, and social change. An honors course designed to provide an enriched experience. Students may not receive credit for both SOC 1 and SOC 1H.

SOC 2 — Sociology 3 Units
54 hours lecture. Degree Appropriate, CSU, UC
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. Individual student projects will be undertaken.

SOC 2H — Sociology – Honors 3 Units
54 hours lecture. Degree Appropriate, CSU, UC
Prerequisite: Acceptance into the Honors Program
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. Individual student projects will be undertaken. 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
54 hours lecture. Degree Appropriate, CSU, UC
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
54 hours lecture. Degree Appropriate, CSU, UC
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.

SOC 14 — Marriage and the Family 3 Units
54 hours lecture. Degree Appropriate, CSU, UC
Prerequisite: Eligibility for ENGL 68
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. Special emphasis is given to understanding group behavior, personality formation, social organization, and social change.

SOC 15 — Child Development 3 Units
54 hours lecture. Degree Appropriate, CSU, UC
Theoretical aspects of physical, social, emotional and cognitive development from conception through adulthood. Requires observation and discussion on Hispanic cultural topics. Introduction to Hispanic culture. Intended for students without previous exposure to Spanish.

SPANISH

SPAN 1 — Elementary Spanish 4 Units
(CAN SPAN 2)
Degree Appropriate, CSU, UC
72 hours lecture.
Development of the ability to converse, read and write in Spanish. Includes essentials of pronunciation, vocabulary, idioms and grammatical structures along with an introduction to Hispanic culture. Intended for students without previous exposure to Spanish.

SPAN 2 — Continuing Elementary Spanish 4 Units
(CAN SPAN 4)
Degree Appropriate, CSU, UC
72 hours lecture.
Further development of conversational, reading and writing skills in Spanish with special emphasis on verbs, grammar and expansion of vocabulary. Further study of Hispanic culture.

SPAN 3 — Intermediate Spanish 4 Units
Degree Appropriate, CSU, UC
(May be taken for option of letter grade or Credit/No Credit.)
72 hours lecture.
Prerequisite: SPAN 1 or SPAN 1H or two years of high school Spanish or equivalent.
Further development of communicative proficiency in Spanish. Further study and review of grammar. Increasing emphasis on reading and writing as tools in exploring Hispanic civilization.

SPAN 4 — Continuing Intermediate Spanish 4 Units
(CAN SPAN 10)
Degree Appropriate, CSU, UC
SPAN 3+4 = CAN SPAN SEQ B
(May be taken for option of letter grade or Credit/No Credit.)
72 hours lecture.
Prerequisite: SPAN 3 or SPAN 3H or equivalent
Emphasis on increased proficiency in speaking, reading and writing Spanish. Review of grammar, increased vocabulary building. Readings and discussions on Hispanic cultural topics. Introduction to Hispanic literature.
Course Descriptions

SPAN 5 — Advanced Spanish  4 Units
Degree Appropriate, CSU, UC
(May be taken for option of letter grade or Credit/No Credit.)
72 hours lecture.
Prerequisite: SPAN 4 or equivalent
Emphasis is placed on increased proficiency in speaking, reading and writing Spanish. Cultural insights are developed through videos, movies and readings in Hispanic culture through different literary genres.

SPAN 6 — Continuing Advanced Spanish  4 Units
Degree Appropriate, CSU, UC
(May be taken for option of letter grade or Credit/No Credit.)
72 hours lecture.
Prerequisite: SPAN 5 or equivalent
Advanced reading, discussing and writing in Spanish designed to provide further cultural insights into the Hispanic world through the study of cultural and literary readings. High level of proficiency in Spanish will be emphasized.

SPAN 11 — Spanish for the Spanish Speaking  4 Units
72 hours lecture. Degree Appropriate, CSU, UC
Provides Spanish-speaking students without previous formal study of Spanish with further development and improvement of skills in standard Spanish and a broader understanding of Hispanic cultures. Focuses on developing vocabulary, improving orthography and the use of grammatical structures, both oral and written. Class instruction conducted in Spanish.

SPAN 12 — Continuing Spanish for the Spanish Speaking  4 Units
72 hours lecture. Degree Appropriate, CSU, UC
Prerequisite: SPAN 11 or equivalent
Provides Spanish-speaking students with previous formal study of Spanish with further development and improvement of skills in standard Spanish and a broader understanding of Hispanic cultures. Culturally-based topics are the focus of readings and class discussions. Class instruction conducted in Spanish.

SPAN 25 — Spanish Literature  3 Units
Degree Appropriate, CSU, UC
(May be taken for option of letter grade or Credit/No Credit.)
54 hours lecture.
Prerequisite: SPAN 4 or equivalent
Introduction to the literatures of Mexico, other Spanish-American countries and Spain. All reading and lectures are in Spanish.

SPAN 35 — Spanish Language Laboratory  .5 Unit
Degree Appropriate, CSU
(May be taken for option of letter grade or Credit/No Credit.)
27 hours lab.
Corequisite: Concurrent or previous enrollment in Spanish
An independent study laboratory course for students who wish to improve their skills in Spanish. May supplement any current or previous Spanish course. Requires 24 hours using Language Learning Center resources to receive credit. Students who repeat this course will improve their language skills and expand their knowledge of Hispanic cultures.

SPAN 53 — Conversational Spanish  3 Units
Degree Appropriate, CSU, UC
(May be taken for option of letter grade or Credit/No Credit.)
54 hours lecture.
Prerequisite: SPAN 2 or equivalent
Development of intermediate Spanish conversational skills. Emphasis on collaborative activities and practical use of the language. Extensive exposure to Hispanic culture. Grammar is presented in context.

SPAN 54 — Continuing Conversational Spanish  3 Units
Degree Appropriate, CSU, UC
(May be taken for option of letter grade or Credit/No Credit.)
54 hours lecture.
Prerequisite: SPAN 53
Development of advanced Spanish conversational skills. Emphasis on collaborative activities and practical use of the language. Extensive exposure to Hispanic culture. Grammar is presented in context.

SPAN 55 — Spanish for Fire and Police Personnel  3 Units
Degree Appropriate, CSU, UC
(May be taken for option of letter grade or Credit/No Credit.)
54 hours lecture.
Teaches the student to elicit basic information and answer simple questions in Spanish relating to everyday situations in law enforcement and fire science. Upon completion, the student will be able to talk to Spanish speakers about routine matters, such as family and job-related conditions.

SPCH 1A — Public Speaking  3 Units
Degree Appropriate, CSU, UC
54 hours lecture.
Prerequisite: Eligibility for ENGL 1A
Study and apply rhetorical principles to research and analyze topics, organize sentence outlines, and deliver effective public speeches. Students perform speaking and listening assignments that utilize effective verbal, vocal and physical communicative strategies, and critical/analytical techniques.

SPCH 1AH — Public Speaking – Honors  3 Units
(CAN SPCH 4)
Degree Appropriate, CSU, UC
54 hours lecture.
Prerequisite: Acceptance into the Honors Program
Study and apply rhetorical principles to research and analyze topics, organize sentence outlines, and deliver effective public speeches. Perform speaking and listening assignments that utilize effective verbal, vocal, and physical communicative strategies and critical/analytical techniques. An honors course designed to provide an enriched experience. Students may not receive credit for both SPCH 1A and SPCH 1AH.

SPCH 1B — Intermediate Public Speaking  3 Units
Degree Appropriate, CSU, UC
54 hours lecture.
Prerequisite: SPCH 1A or SPCH 1AH
Practice in extemporaneous speaking with stress on organization and delivery. Analyze, synthesize, criticize and advocate ideas, using inductive and deductive reasoning, distinguishing fact from opinion and avoiding fallacies of language and logic as critical thinkers both as alert members of an audience and as perceptive public speakers.

SPCH 3 — Voice and Diction  3 Units
Degree Appropriate, CSU, UC
(May be taken for option of letter grade or Credit/No Credit.)
54 hours lecture.
Improvement of the speaking voice and oral communication style, including proper use for control and projection of the voice, vocal expressiveness, articulation and pronunciation. Develops accuracy of sound production for standard American speech through use of the International Phonetic Alphabet. Emphasizes individual diagnosis and extensive oral practice.

SPCH 4 — Oral Interpretation of Literature  3 Units
Degree Appropriate, 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 prose, poetry, drama, essay and experimental forms of performance text.

SPCH 5 — Readers Theater  3 Units
Degree Appropriate, CSU, UC
54 hours lecture.
Prerequisite: SPCH 1A or SPCH 1AH or SPCH 4
Theory, principles, and techniques of the interpretation of literature in the medium of Readers Theater. There is programming and presentation of prose, poetry and drama by an ensemble of readers. Emphasis is placed on experimental presentations and on the development of analytical insight into literary forms.

SPCH 6 — Small Group Communication  3 Units
Degree Appropriate, 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. Theory, application and evaluation of group communication processes, including problem-solving, conflict management, decision making, and leadership.

SPCH 7 — Intercultural Communication  3 Units
Degree Appropriate, CSU
54 hours lecture.
Introduction to intercultural communication in domestic and/or global contexts. Influence of cultures, languages, and social patterns on how members of groups relate among themselves and with members of different ethnic and cultural groups. Theory and application of effective communication across cultures. Appreciation of diverse cultural voices.
SPCH 15 — Forensics: Contest Speech and Debate 2 Units
(May be taken four times for credit.) Degree Appropriate, CSU
18 hours lecture.
Advisory: SPCH 1A or SPCH 1AH
Participation in intercollegiate speech tournaments through Mt. SAC Forensics Team. Instructions in preparatory procedures for these tournaments, including techniques in persuasive oratory, extemporaneous, research, organization of ideas, and management of speech anxiety. Includes multiple speaking and anxiety reduction activities. Students who repeat this course will improve skills through further instruction and practice.

SPCH 16A — Forensics: Individual Event Team 2 Units
(May be taken three times for credit.) Degree Appropriate, CSU
180 hours activity.
Corequisite: SPCH 15 (May have been taken previously)
Students develop speech performance skills and participate in multiple intercollegiate speaking competitions, festivals, and/or public events as members of the Mt. SAC Forensics Team. Emphasis is on individual speaking events, including public address and oral interpretation of literature, judge critiques and directed self-study. Students who repeat this course will improve skills through further instruction and practice.

SPCH 16B — Forensics: Debate Team 2 Units
(May be taken three times for credit.) Degree Appropriate, CSU
180 hours activity.
Corequisite: SPCH 15 (May have been taken previously)
Students develop speaking and argumentation skills and participate in multiple intercollegiate speaking competitions, festivals, and/or public events as members of the Mt. SAC Forensics Team. Emphasis is on parliamentary debate and extemporaneous speaking. Students who repeat this course will improve skills through further instruction and practice.

SPCH 16C — Forensics: Readers Theater Team 2 Units
(May be taken three times for credit.) Degree Appropriate, CSU
180 hours activity.
Corequisite: SPCH 15 (May have been taken previously)
Students develop speech performance skills and participate in multiple intercollegiate speaking competitions, festivals, and/or public events as members of the Mt. SAC Forensics Team. Students will perform in one or more Readers Theater pieces. Students who repeat this course will improve skills through further instruction and practice.

SPCH 20 — Argumentation and Debate 3 Units
54 hours lecture.
Prerequisite: SPCH 1A or SPCH 1AH or equivalent
Equips the student to engage in rational discussion and reasoned advocacy. Emphasis is given to rhetorical principles of argumentation, both theory and practice.

SPCH 20H — Argumentation and Debate – Honors 3 Units
54 hours lecture.
Degree Appropriate, CSU, UC
Prerequisite: SPCH 1A or SPCH 1AH and acceptance into the Honors Program
Equips the student to engage in rational discussion and reasoned advocacy. Emphasis is given to rhetorical principles of argumentation, both theory and practice. An honors course designed to provide an enriched experience. Students may not receive credit for both SPCH 20 and SPCH 20H.

SPCH 26 — Interpersonal Communication 3 Units
54 hours lecture.
Degree Appropriate, CSU, UC
Prerequisite: Eligibility for ENGL 68
Principles of verbal and nonverbal transactions that occur in everyday face-to-face communication. Study of theory and research findings and their application to communication in professional and personal relationships.

SPCH 26H — Interpersonal Communication – Honors 3 Units
54 hours lecture.
Degree Appropriate, CSU, UC
Prerequisite: Acceptance into the Honors Program
Principles of verbal and non-verbal transactions that occur in everyday face-to-face communication. Study of theory and research findings and their application to communication in professional and personal relationships. An honors course designed to provide an enriched experience. Students may not receive credit for both SPCH 26 and SPCH 26H.

SPCH 26 — Interpersonal Communication 3 Units
54 hours lecture.
Degree Appropriate, CSU, UC
Prerequisite: Eligibility for ENGL 68
Principles of verbal and nonverbal transactions that occur in everyday face-to-face communication. Study of theory and research findings and their application to communication in professional and personal relationships.

SPCH 26H — Interpersonal Communication – Honors 3 Units
54 hours lecture.
Degree Appropriate, CSU, UC
Prerequisite: Acceptance into the Honors Program
Principles of verbal and non-verbal transactions that occur in everyday face-to-face communication. Study of theory and research findings and their application to communication in professional and personal relationships. An honors course designed to provide an enriched experience. Students may not receive credit for both SPCH 26 and SPCH 26H.

SPCH 68 — Preparation for Public Speaking 3 Units
54 hours lecture.
Degree Appropriate
Advisory: Eligibility for ENGL 67 or AMLA 43W or eligibility for ENGL 68
Preparation for college level public speaking. Emphasis on outlining, research skills, organization of ideas, and management of speech anxiety. Includes multiple speaking and anxiety reduction activities.

SPCH 99 — Special Projects in Speech 2 Units
(May be taken four times for credit.) Degree Appropriate, CSU
108 hours lecture.
To offer selected students recognition for their academic interests and ability and the opportunity to explore their disciplines to greater depth, the various departments from time to time offer Special Projects courses. The content of each course and the methods of study vary from semester to semester and depend on the particular project under consideration. Students repeating this course will make individual contracts of a more advanced nature with the instructor to ensure that proficiencies are enhanced.

STDY 80 — Studying and Learning: Foundations for Success 3 Units
Pre-Collegiate
(May be taken for option of letter grade or Credit/No Credit.)
54 hours lecture.
Advisory: Eligibility for ENGL 67 or READ 80
Provides a foundation for life-long learning that promotes greater self-awareness and success. Academic success strategies include text management, time management, listening, note taking, oral and written communication, test-taking, memorization, use of campus resources, and research methods.

STDY 85 — Focused Study Techniques 1 Unit
(May be taken four times for credit.) Degree Appropriate
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 any one of the following: test taking, research process, time management, team building, methods of learning, memory, concentration, listening, note-taking, textbook reading strategies, or motivation. Students who repeat this course will improve skills through further instruction and practice.

STDY 100 — Student Achievement and Fundamentals 3 Units
Of Learning
54 hours lecture.
Degree Appropriate, CSU
Advisory: Eligibility for ENGL 68 or READ 100
Designed to increase student success in transfer college level courses. Provides a systematic approach to advanced study techniques for academic success in higher education. Develops the steps leading to successful transfer/transition to four-year institutions or careers.

SURV 1A — Surveying 3 Units
(May be taken for option of letter grade or Credit/No Credit.)
36 hours lecture.
54 hours lab.
Prerequisite: MATH 150 or equivalent high school course
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 random errors; stadia surveying; mapping.

SURV 1B — Surveying 3 Units
Degree Appropriate, CSU, UC
(May be taken for option of letter grade or Credit/No Credit.)
36 hours lecture.
54 hours lab.
Prerequisite: SURV 1A
Construction surveying; volumes; property surveying; control surveys; California coordinate system; horizontal and vertical curves; introduction to electronic, photogrammetric, and G.I.S. methods; mapping project; introduction to the method of least squares; land survey descriptions; astronomical observations.
### TECHNOLOGY & RELATED COURSES

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>TECH 60</td>
<td>Customer Relations for the Technician</td>
<td>1 Unit</td>
<td>Degree Appropriate, CSU, UC 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.</td>
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</tbody>
</table>

### THEATER ARTS

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>THTR 9</td>
<td>Introduction to Theater Arts</td>
<td>3 Units</td>
<td>Degree Appropriate, CSU, UC 54 hours lecture. A comprehensive introduction to the theater, including the aesthetic, artistic, technical, and business aspects.</td>
</tr>
<tr>
<td>THTR 10</td>
<td>History of Theater Arts</td>
<td>3 Units</td>
<td>Degree Appropriate, CSU, UC 54 hours lecture. Designed to present an appreciative background to dramatic literature and to the development of dramatic art. Representative plays and the history and development of the living stage will be stressed.</td>
</tr>
<tr>
<td>THTR 11</td>
<td>Principles of Acting I</td>
<td>3 Units</td>
<td>Degree Appropriate, 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.</td>
</tr>
<tr>
<td>THTR 12</td>
<td>Principles of Acting II</td>
<td>3 Units</td>
<td>Degree Appropriate, CSU, UC 54 hours lecture. Advanced study of principles presented in DRMA 11. An investigation of acting techniques through the study and presentation of varied dramatic scenes.</td>
</tr>
<tr>
<td>THTR 14</td>
<td>Stagecraft</td>
<td>3 Units</td>
<td>Degree Appropriate, CSU, UC 36 hours lecture. 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 theater situations. By virtue of the wide range of productions staged by the department, students who repeat this course will increase their skills and proficiency.</td>
</tr>
<tr>
<td>THTR 15</td>
<td>Play Rehearsal and Performance</td>
<td>2 Units</td>
<td>Degree Appropriate, CSU, UC (May be taken four times for credit.) (May be taken for option of letter grade or Credit/No Credit.) 108 hours lab. Participation under faculty supervision in the 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.</td>
</tr>
<tr>
<td>THTR 16</td>
<td>Theatrical Make-Up</td>
<td>2 Units</td>
<td>Degree Appropriate, CSU, UC 36 hours lecture. Degree Appropriate, CSU, UC 36 hours lab. An introduction to the theory and practice of make-up for the stage. The student will gain practice in the design and application of straight, stylized character, and other make-up techniques.</td>
</tr>
<tr>
<td>THTR 17</td>
<td>Acting for Television</td>
<td>3 Units</td>
<td>Degree Appropriate, CSU, UC 54 hours lecture. Degree Appropriate, CSU, UC 36 hours lab. Assists students to prepare for an occupation in the performing areas of television 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 with practical exercises and scenes in various styles such as TV drama, sit-coms, news, commercials.</td>
</tr>
<tr>
<td>THTR 18</td>
<td>Technical Theater Practicum</td>
<td>1 Unit</td>
<td>Degree Appropriate, CSU, UC (May be taken four times for credit.) Degree Appropriate, CSU, UC (May be taken for option of letter grade or Credit/No Credit.) 54 hours lab. Participation in the technical preparation and operation of productions presented to the community. The student will be involved in one or more of the following areas: stage scenery construction, stage lighting set up, property construction, stage sound set up, costume construction and make-up. Crew assignments will be given to the student upon enrollment. The availability of assignments is contingent upon the requirements of the production. Students who repeat this course will improve skills through further instruction and practice.</td>
</tr>
<tr>
<td>THTR 19</td>
<td>Theatrical Costuming</td>
<td>3 Units</td>
<td>Degree Appropriate, CSU, UC 36 hours lecture. Degree Appropriate, CSU, UC 54 hours lab. Theatrical costuming design and construction. Includes the study of costume history, principles of costume design, fibers and textiles, basic costume construction, and design rendering techniques. Costume crew assignments for major productions will provide practical instruction in actual performance demands on costumes and their proper maintenance. Class is suitable for people interested in costuming for theater, dance, film, television, and reenactments. Students who repeat this course will improve skills through further instruction and practice.</td>
</tr>
<tr>
<td>THTR 20</td>
<td>Special Projects in Theater</td>
<td>2 Units</td>
<td>Degree Appropriate, CSU, UC 36 hours lecture. To offer selected students recognition for their academic interests and ability and the opportunity to explore their disciplines in greater depth, the various departments from time to time offer Special Projects courses. The content of each course and the methods of study vary from semester to semester and depend on the particular project under consideration. Students repeating this course will make individual contracts of a more advanced nature with the instructor to ensure that proficiencies are enhanced.</td>
</tr>
</tbody>
</table>
TRANSPORTATION

TRAN 17 — Air Transportation 3 Units
54 hours lecture. Degree Appropriate, CSU
Advisory: AERO 23
A survey course of the air transportation industry. Topics include a historical perspective, regulators and associations, general aviation, industry, airline industry, economic characteristics of the airlines, airline management, air cargo, airline labor relations, international aviation, and aviation career planning.

TRAN 19 — Air Law and Regulation 2 Units
36 hours lecture. Degree Appropriate
Develops a basic understanding of the legal environment surrounding aviation, the fundamentals of the U.S. legal system, and the impact of the U.S. Constitution on aviation activities. Topics include criminal law for aviators and air carriers, tort liability and air commerce, government regulations, contract and commercial law in aviation related businesses, property law for aircraft owners and airport operators, labor and employment law in aviation industries, international law and treaties that affect aviation.

TUTOR TRAINING

TUTR 10A — Introduction to Tutoring 1 Unit
Non-Degree Credit
(May be taken for option of letter grade or Credit/No Credit.)
18 hours lecture.
Prerequisite: Eligibility for ENGL 1A
Introduction to tutoring, with an emphasis on tutoring strategies, problem solving, and working with a diverse student population.

TUTR 10B — Tutoring in the English Language 1 Unit
Non-Degree Credit
(May be taken for option of letter grade or Credit/No Credit.)
18 hours lecture.
Prerequisite: Eligibility for ENGL 1A
Tutoring in the English language with an emphasis on approaches to working with students on written drafts and addressing the needs of non-native speakers.

TUTR 10C — Tutoring as a Supplemental Instructor 1 Unit
Non-Degree Credit
(May be taken for option of letter grade or Credit/No Credit.)
18 hours lecture.
Prerequisite: Eligibility for ENGL 1A
Tutoring as a Supplemental Instructor with an emphasis on tutoring in the classroom and in small groups under the supervision of a designated instructor.

TUTR 10D — Tutoring in Mathematics 1 Unit
Non-Degree Credit
(May be taken for option of letter grade or Credit/No Credit.)
18 hours lecture.
Prerequisite: MATH 71 or MATH 72 or higher
Tutoring in mathematics with an emphasis on strategies to promote active learning using manipulatives and dealing with specific obstacles in developmental algebra.

WATER TECHNOLOGY

WATR 60 — Introduction to Water Systems 3 Units
54 hours lecture. Degree Appropriate
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 II and III State Water Treatment Operator Certification and Grade I AWWA Water Distribution Operator Certification.

WATR 61 — Water Treatment 3 Units
54 hours lecture. Degree Appropriate
Advisory: WATR 60 taken prior
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 62 — Water Distribution 3 Units
54 hours lecture. Degree Appropriate
Advisory: WATR 60 taken prior
Water distribution systems operation, administration, safety, maintenance, introduction to Cross-connection Control Title 17. Prepares student for Grade II and III AWWA Distribution Operator Certification.

WATR 63 — Cross Connection Control — Certified Tester 3 Units
54 hours lecture. Degree Appropriate
Advisory: WATR 60 taken prior or concurrently
Offers knowledge necessary to understand the operation of and testing procedures for backflow prevention assemblies. Analyzes Title 17 of the California Administrative Code and Chapter 6 of the Uniform Plumbing Code as they relate to cross-connection control. Prepares students for County Health Department and AWWA certification as Backflow Prevention Device Testers.

WATR 64 — Cross Connection Control — Certified Specialist 3 Units
54 hours lecture. Degree Appropriate
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
54 hours lecture. Degree Appropriate
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
(May be taken two times for credit.) Degree Appropriate, CSU
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 art industry. Students who repeat this course will improve skills through further instruction and practice.

WELD 40 — Introduction to Welding 2 Units
18 hours lecture. Degree Appropriate, CSU
54 hours lab.
Fundamentals of welding processes related to the areas of fabrication, construction, machine tool, aerospace and the transportation industries.

WELD 50 — Oxyacetylene Welding 2 Units
18 hours lecture. Degree Appropriate
54 hours lab.
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
18 hours lecture. Degree Appropriate
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
54 hours lecture. Degree Appropriate, CSU
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
54 hours lecture. Non-Degree Credit
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
18 hours lecture. Degree Appropriate
108 hours lab.
Develops manipulative skills and techniques for the beginning student welder on the shield metal arc (SMAW) and the flux cored arc (FCAW) welding processes in the flat and horizontal positions using AC and DC welding currents on carbon steel.

WELD 70B — Intermediate Arc Welding  3 Units
18 hours lecture. Degree Appropriate
108 hours lab.
Advisory: WELD 70A taken prior
A continuation of Beginning Arc Welding (WELD 70A). Emphasis is on welding high alloy steel with both SMAW and FCAW processes in the vertical and overhead positions. Designed to refine previously acquired welding skills.

WELD 70C — Intermediate Arc Welding  3 Units
18 hours lecture. Degree Appropriate
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 70D — Pipe and Tube Welding  3 Units
18 hours lecture. Degree Appropriate
108 hours lab.
Advisory: WELD 70B taken prior
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.

WELD 91 — Automotive Welding, Cutting and Modification  3 Units
18 hours lecture. Degree Appropriate
108 hours lab.
Advisory: WELD 70B, WELD 70C
Prerequisite: Compliance with work experience regulations as designated in the college catalog
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.

WELD 96 — Work Experience in Welding  1 Unit
(50) May be taken four times for credit.) Degree Appropriate
75 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 11

Community Education
COMMUNITY 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 Community 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 Community Education Division office the Administration Building, building 4, room 221D, during the first week of registration and at the beginning of each semester for career and educational planning. These educational advisement services are also offered throughout the semester through the Community Education Center. To schedule an individual appointment, students should call the Community Education Center, (909) 594-5611, ext. 4845.

The Basic Skills and ESL departments provide counselors and educational advisors to serve their students. Assistance to all noncredit students includes development of Educational and Career Plans, identification of personal, academic and career goals, career skill practice and resources, transitioning to credit programs, and assessment of special needs.

Fees and Expenses
There is no tuition for noncredit courses. However, some courses include a fee for materials provided to students. In addition, students who park on the Mt. San Antonio College campus must have a valid, current parking permit. Permits may be purchased in the Administration Building, building 4, lower level. Books and supplies needed for a class are the responsibility of the student unless specifically noted as provided by a material fee.

Credit/Noncredit Combined Courses
The Division offers many credit classes to Community Education students for noncredit. Students may enroll in these classes in accordance with procedures outlined in the Community 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 213 of this catalog.) Students wishing to complete a noncredit certificate program in one of the occupational areas of study must apply to the Community Education Division office, the Administration Building, building 4, room 221 to initiate the issuance of a certificate. Certificate completion forms should be obtained from the Division office prior to the end of the first semester of classes.

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 (Careers in Business and Careers in Health)
- 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 Community Education Registration office in the Administration Building, building 4, room 221D, or in the Wellness Center. For more information, contact (909) 594-5611, ext. 4625.
Community Education

Community Health Programs and CPR
The College offers courses such as First Aid, Heartsaver, AED and more.
- Records rosters and information updates per American Heart Association (AHA) requirements
- Provides videos, texts and manikins per AHA requirements
For more information, contact (909) 594-5611, ext. 4838.

Health Careers Resource Center (HCRC)
The Center provides the resources to increase student knowledge base, to learn new skills and to reinforce previously learned skills. Resources are provided to anyone involved or interested in health occupations. The HCRC provides a state-of-the-art learning 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 aides for hands on demonstrations and application of basic, intermediate and advanced skills
- Health Skills Performance Update/ Evaluation
- Clinical simulations for Med-Surg, Psych, OB, Peds, Perioperative etc.

Self-Paced, Multisensory Learning Aides
- Expansive Technology Library on all health subjects
- Medical/Nursing resource books, journals
- ADAM programs for anatomy and physiology review
- Mock computer adaptive testing programs for NCLEX-RN and PN State Board Exam preparation
- Computer adaptive instruction for gaining or remediating math, pharmacology, dosage calculation skills or medication administration skills
- Internet access for searching full-text article databases and access lists of pre-evaluated web sites on all lab computers
- Computerized virtual clinical simulation programs
- Medical terminology and bilingual media for International learners

Older Adult Program*
Courses designed for older adults (age 55+ years) provide the full continuum of education from vocational classes to the pursuit of long-standing educational goals. Classes are offered in the arts, personal growth, physical and mental fitness and vocational areas, and are conducted both on campus and at various senior and community centers and residential facilities throughout the Mt. San Antonio College District.

Mountie Volunteer Program (MVP)
The MVP Program coordinates and provides volunteer opportunities on campus while providing training and support services for MVP participants. Partnering with the Retired Senior Volunteer Program (RSVP) of the greater Pomona Valley, the program provides for the recruiting and screening of potential volunteers.

Generations Program
The Generations Program provides educational activities which foster intergenerational relationships that link generations for the good of society, such as student athletes providing volunteer hours for the Older Adult Program.
For more information on Older Adult Programs, please call (909) 594-5611, ext. 4192.

The Training Source
The Training Source provides on-site, customized, short-term training courses for businesses, K-12 school districts, cities and agencies in the greater Los Angeles and Inland Empire areas. Programs are designed to meet specific client needs and are taught by college faculty members as well as industry professionals. For more information, contact (909) 468-3933.

Other Community Education 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)
- Community Education Fitness Programs
- Farm Tours
- Wildlife Sanctuary Tours
- Planetarium Shows
- Study Skills Laboratory for Disabled Students Programs and Services
- San Gabriel Valley Training Center (serving developmentally disabled adults)

For more information regarding Community 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.
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**CERTIFICATES OF COMPETENCY**

Noncredit Certificates of Competency represent sequences of courses in Basic Skills, Career Development, English as a Second Language or Secondary Education, which allow the student to develop individual competencies based on their personal educational goals and objectives. Each certificate is unique, but all provide the student an opportunity to gain skills necessary to advance in their careers or 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.

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### English as a Second Language

**SYS #784025**

ESL students are placed within the following sequence of courses according to their English abilities. Students progress through this sequence based on individual need before transferring into credit courses or employment. Supplemental courses in speaking, writing and vocational language will assist their progress through the sequence and may be taken along with level classes as needed.

Courses are offered all year long, including winter and summer intersessions. Classes are offered days, evenings and weekends. For more information, please call (909) 594-5611, ext. 5235.

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### 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:

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<tr>
<td>BCSK HSPHSC</td>
<td>High School Physical Science</td>
</tr>
<tr>
<td>BCSK HSPNGL</td>
<td>High School Planning and Guidance</td>
</tr>
<tr>
<td>BCSK HSPREA</td>
<td>High School Pre-Algebra</td>
</tr>
<tr>
<td>BCSK HSPSY</td>
<td>High School Psychology</td>
</tr>
<tr>
<td>BCSK HSSC</td>
<td>High School Study Skills</td>
</tr>
<tr>
<td>BCSK HSSS</td>
<td>High School Single Survival</td>
</tr>
</tbody>
</table>

### Certificates in Occupational Training

California Community College Adult Education Programs are authorized to offer short-term vocational programs with high employment potential. The demonstration of need to offer these programs within the College service area is determined by manpower needs projections from the California Occupational Information System (COTS), or surveys of employer needs in the community, or state licensing mandates and/or certification.

#### What Are Occupational Training Certificates?

Certificates in a variety of vocational programs are available through the Community 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 Community Education Division also offers fee-based Certificate Programs. These include:

- Accounting/Bookkeeping
- CPR and First Aid
- Medical Insurance Billing Specialist

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:

- Obtain the appropriate Certificate Application Form from the Community Education Division Office, Administration Building 4, Room 221.
- Register and pay material fees if required for desired classes
- Attend a minimum of 75% of required class hours
- Satisfactorily complete coursework, papers and projects, take and pass mid-terms and final with the equivalent of a “C” grade
- Obtain instructor signature upon completion of each class

2007-08 Mt. San Antonio College Catalog
### 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. If the student did not have previous coursework, the sequence can be completed in one year, and students have several choices of courses to select for desired emphases.  
**Certificate Requirements:**
Completion of Accounting – Bookkeeping Certificate (234 hours)

<table>
<thead>
<tr>
<th>Course ID</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>VOC BSA75</td>
<td>Using Microcomputers in Financial Accounting</td>
<td>18</td>
</tr>
<tr>
<td>VOC BSA76</td>
<td>Using Microcomputers in Managerial Accounting</td>
<td>18</td>
</tr>
<tr>
<td>VOC C6815</td>
<td>Microcomputer Applications</td>
<td>72</td>
</tr>
<tr>
<td>VOC CP11</td>
<td>Internet Research for Business</td>
<td>36</td>
</tr>
<tr>
<td>VOC CP20</td>
<td>Microsoft Word</td>
<td>72</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td></td>
<td><strong>216</strong></td>
</tr>
</tbody>
</table>

### Accounting – Payroll
**SYS #597867**
The Payroll Certificate combines basic accounting skills with specialized training in payroll preparing the student for entry-level positions within the payroll segment of accounting. Common duties performed in this field include payroll tax reporting, maintenance of payroll accounting systems and posting payroll transactions to journals/ledgers. The sequence could be completed in one semester. Courses are offered both Fall and Spring semesters.

**Certificate Requirements:**  
Completion of Accounting – Bookkeeping Certificate (234 hours)

<table>
<thead>
<tr>
<th>Course ID</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>VOC AGAN02</td>
<td>Animal Nutrition</td>
<td>54</td>
</tr>
<tr>
<td>VOC AGAN94</td>
<td>Animal Breeding</td>
<td>54</td>
</tr>
<tr>
<td>VOC AGL116</td>
<td>Horse Production, or</td>
<td>72</td>
</tr>
<tr>
<td>VOC AGL118</td>
<td>Horse Ranch Management</td>
<td>72</td>
</tr>
<tr>
<td>VOC AGL19</td>
<td>Horse Hoof Care</td>
<td>36</td>
</tr>
<tr>
<td>VOC AGL196</td>
<td>Animal Sanitation and Disease Control</td>
<td>54</td>
</tr>
<tr>
<td>VOC AGL197</td>
<td>Artificial Insemination of Livestock</td>
<td>36</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td></td>
<td><strong>324</strong></td>
</tr>
</tbody>
</table>

### Floral Design
**SYS #132282**
This sequence is offered in the evening only on campus and at off-campus locations and can be completed in two years. Students completing all three courses will have skills and knowledge to seek jobs in floral design beyond entry-level positions, i.e., first-line supervision and/or management and Floral Designers.

**Certificate Requirements:**

<table>
<thead>
<tr>
<th>Course ID</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>VOC AGLP25</td>
<td>Floral Design – 1</td>
<td>90</td>
</tr>
<tr>
<td>VOC AGLP26</td>
<td>Floral Design – 2</td>
<td>90</td>
</tr>
<tr>
<td>VOC AGLP26</td>
<td>Floral Design – 3</td>
<td>90</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td></td>
<td><strong>270</strong></td>
</tr>
</tbody>
</table>

### Horse Ranch Management
**SYS #391289**
This sequence of courses is designed to enable students to prepare for a career in horse ranch management. Courses provide students hands-on experience designed to give them a combination of practical skills and technical knowledge. The sequence can be completed in one year if taken full-time.

**Certificate Requirements:**

<table>
<thead>
<tr>
<th>Course ID</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>VOC AGLR01</td>
<td>Animal Nutrition</td>
<td>54</td>
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<tr>
<td>VOC AGLR04</td>
<td>Animal Breeding</td>
<td>54</td>
</tr>
<tr>
<td>VOC AGLR11</td>
<td>Horse Production, or</td>
<td>72</td>
</tr>
<tr>
<td>VOC AGLR13</td>
<td>Horse Ranch Management</td>
<td>72</td>
</tr>
<tr>
<td>VOC AGLR19</td>
<td>Horse Hoof Care</td>
<td>36</td>
</tr>
<tr>
<td>VOC AGLR196</td>
<td>Animal Sanitation and Disease Control</td>
<td>54</td>
</tr>
<tr>
<td>VOC AGLR197</td>
<td>Artificial Insemination of Livestock</td>
<td>36</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td></td>
<td><strong>324</strong></td>
</tr>
</tbody>
</table>

### Landscape and Park Maintenance
**SYS #621629**
This certificate is designed to give students basic skills in park landscape maintenance. The sequence can be completed in four semesters. Courses are offered annually, and students are advised to seek admission for the maintenance of grounds, property or parks.

**Certificate Requirements:**

<table>
<thead>
<tr>
<th>Course ID</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>VOC AGLP01</td>
<td>Horticultural Science</td>
<td>54</td>
</tr>
<tr>
<td>VOC AGLP24</td>
<td>Pest Management</td>
<td>54</td>
</tr>
<tr>
<td>VOC AGLP29</td>
<td>Ornamental Plants – Herbecous</td>
<td>54</td>
</tr>
<tr>
<td>VOC AGLP30</td>
<td>Ornamental Plants – Trees and Woody Shrubs</td>
<td>54</td>
</tr>
<tr>
<td>VOC AGLP39</td>
<td>Turf Grass Production and Management</td>
<td>54</td>
</tr>
<tr>
<td>VOC AGLP40</td>
<td>Sports Turf Management</td>
<td>54</td>
</tr>
<tr>
<td>VOC AGLP51</td>
<td>Tractor and Landscape Equipment Operations</td>
<td>54</td>
</tr>
<tr>
<td>VOC AGLR62</td>
<td>Landscape Irrigation – Design and Installation</td>
<td>54</td>
</tr>
<tr>
<td>VOC AGLR63</td>
<td>Landscape Irrigation System Management</td>
<td>54</td>
</tr>
<tr>
<td>VOC AGLR71</td>
<td>Landscape Construction Fundamentals</td>
<td>54</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td></td>
<td><strong>432</strong></td>
</tr>
</tbody>
</table>

### Interior Landscaping
**SYS #118137**
This certificate is designed to give students basic skills in the design, installation and maintenance of interior plants that are used in residences, offices, hotels, malls, restaurants and other locations. The sequence of courses can be completed in one year and is offered on an annual basis.

**Certificate Requirements:**

<table>
<thead>
<tr>
<th>Course ID</th>
<th>Course Title</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>VOC BSA35</td>
<td>Principles of Accounting – Financial, or</td>
<td>90</td>
</tr>
<tr>
<td>VOC BSA37</td>
<td>Bookkeeping – Accounting</td>
<td>90</td>
</tr>
<tr>
<td>VOC BSA53</td>
<td>Ten-Key Calculations</td>
<td>36</td>
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<tr>
<td>VOC BSA05</td>
<td>Business English, or</td>
<td>54</td>
</tr>
<tr>
<td>VOC BSA25</td>
<td>Business Communications</td>
<td>54</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td></td>
<td><strong>324</strong></td>
</tr>
</tbody>
</table>
Community Education

Landscape Design and Construction
SYS #919610
This certificate is designed to give students basic skills needed in employment with a landscape contractor. The sequence can be completed in one year, and employment potential is very good. Courses are offered both Fall and Spring semesters. Some courses will provide transfer articulation with colleges and universities offering a Bachelor of Science Degree in Horticulture.

Certificate Requirements:
Course ID Course Title Hours
VOC AGOR01 Horticultural Science 54
VOC AGOR13 Landscape Design 54
VOC AGOR29 Ornamental Plants – Herbaceous 54
VOC AGOR30 Ornamental Plants – Trees and Woody Shrubs 54
VOC AGOR50 Soil Science and Management 54
VOC AGOR51 Tractor and Landscape Equipment Operations 54
VOC AGOR62 Landscape Irrigation – Design and Installation 54
VOC AGOR71 Landscape Construction Fundamentals 54
VOC AGOR72 Landscape Hardscape Applications 54
Total Hours 486

Landscape Irrigation
SYS #327645
This certificate is designed to give students basic skills in irrigation design, repair installation, water management and troubleshooting. It can be completed in one year and courses are offered Fall and Spring semesters. Jobs are plentiful with landscape contractors, schools, parks and cities.

Certificate Requirements:
Course ID Course Title Hours
VOC AGOR01 Horticultural Science 54
VOC AGOR13 Landscape Design 54
VOC AGOR39 Turf Grass Production and Management 54
VOC AGOR50 Soil Science and Management 54
VOC AGOR51 Tractor and Landscape Equipment Operations 54
VOC AGOR62 Landscape Irrigation – Design and Installation 54
VOC AGOR63 Landscape Irrigation System Management 54
VOC AGOR64 Landscape Irrigation – Drip and Low Volume 54
VOC AGOR71 Landscape Construction Fundamentals 54
Total Hours 486

Livestock Management
SYS #335398
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 and can be completed in two years.

Certificate Requirements:
Course ID Course Title Hours
VOC AGOR01 Horticultural Science 54
VOC AGOR51 Tractor and Landscape Equipment Operations 54
VOC AGOR52 Hydraulics 54
VOC AGOR53 Small Engine Repair I 54
VOC AGOR54 Diesel Engine Repair 54
VOC AGOR55 Engine Diagnostics 54
VOC AGOR56 Power Train Repair 54
VOC AGOR71 Landscape Construction Fundamentals 54
VOC AGOR72 Landscape Hardscape Applications 54
Total Hours 495

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 and can be completed in one year.

Certificate Requirements:
Course ID Course Title Hours
VOC AGOR01 Horticultural Science 54
VOC AGOR02 Plant Propagation/ Greenhouse Management 54
VOC AGOR24 Integrated Pest Management 54
VOC AGOR29 Ornamental Plants – Herbaceous 54
VOC AGOR30 Ornamental Plants – Trees and Woody Shrubs 54
VOC AGOR32 Landscaping and Nursery Management 54
VOC AGOR39 Turf Grass Production and Management 54
VOC AGOR62 Landscape Irrigation – Design and Installation 54
VOC AGOR64 Landscape Irrigation – Drip and Low Volume 54
Total Hours 630

Pet Science
SYS #525556
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. Thus, the sequence can be completed in two years.

Certificate Requirements:
Course ID Course Title Hours
VOC AGAN01 Animal Science 54
VOC AGAN02 Animal Nutrition 54
VOC AGAN51 Animal Handling and Restraint 54
VOC AGAN94 Animal Breeding 54
VOC AGLI96 Animal Sanitation and Disease Control 54
VOC AGPE70 Pet Shop Management 54
VOC AGPE71 Canine Management 54
VOC AGPE72 Feline Management 54
VOC AGPE73 Tropical and Coldwater Fish Management 54
VOC AGP374 Reptile Management 54
VOC AGPE76 Aviculture – Cage and Aviary Birds 54
VOC BSM66 Small Business Management 54
Total Hours 648

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. The sequence of courses is offered on an annual basis and can be completed in one year.

Certificate Requirements:
Course ID Course Title Hours
VOC AGOR13 Landscape Design 54
VOC AGOR39 Turf Grass Production and Management 54
VOC AGOR62 Landscape Irrigation – Design and Installation 54
VOC AGOR64 Landscape Irrigation – Drip and Low Volume 54
Total Hours 684
### 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 can be completed in one year and is offered on an annual basis.

**Certificate Requirements:**

<table>
<thead>
<tr>
<th>Course ID</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>VOC AGOR01</td>
<td>Horticultural Science</td>
<td>54</td>
</tr>
<tr>
<td>VOC AGOR24</td>
<td>Integrated Pest Management</td>
<td>54</td>
</tr>
<tr>
<td>VOC AGOR30</td>
<td>Ornamental Plants – Trees and Woody Shrubs</td>
<td>54</td>
</tr>
<tr>
<td>VOC AGOR32</td>
<td>Turf Grass Production and Management</td>
<td>54</td>
</tr>
<tr>
<td>VOC AGOR39</td>
<td>Landscape Irrigation – Design and Installation</td>
<td>54</td>
</tr>
<tr>
<td>VOC AGOR62</td>
<td>Landscape Irrigation Systems Management</td>
<td>54</td>
</tr>
<tr>
<td>VOC AGOR63</td>
<td>Landscape Irrigation Systems Management</td>
<td>54</td>
</tr>
</tbody>
</table>

**Total Hours:** 486

### Tree Care and Maintenance  
**SYS #182769**

This certificate is designed to give students basic skills in the repair and maintenance of trees. The sequence can be completed in one year and the courses are offered on an annual basis.

**Certificate Requirements:**

<table>
<thead>
<tr>
<th>Course ID</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>VOC AGOR01</td>
<td>Horticultural Science</td>
<td>54</td>
</tr>
<tr>
<td>VOC AGOR24</td>
<td>Integrated Pest Management</td>
<td>54</td>
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<tr>
<td>VOC AGOR30</td>
<td>Ornamental Plants – Trees and Woody Shrubs</td>
<td>54</td>
</tr>
<tr>
<td>VOC AGOR32</td>
<td>Landscape and Nursery Management</td>
<td>54</td>
</tr>
<tr>
<td>VOC AGOR50</td>
<td>Soil Science and Management</td>
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</tr>
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<td>VOC AGOR51</td>
<td>Tractor and Landscape Equipment Operations</td>
<td>54</td>
</tr>
<tr>
<td>VOC AGOR62</td>
<td>Landscape Irrigation – Design and Installation</td>
<td>54</td>
</tr>
<tr>
<td>VOC AGOR63</td>
<td>Landscape Irrigation Systems Management</td>
<td>54</td>
</tr>
</tbody>
</table>

**Total Hours:** 432

### Business Management – Level 1  
**SYS #185845**

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. Courses are offered on an annual basis, and each level of the Business Management emphasis can be completed in one semester.

**Certificate Requirements:**

<table>
<thead>
<tr>
<th>Course ID</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>VOC BSM20</td>
<td>Principles of Business</td>
<td>54</td>
</tr>
<tr>
<td>VOC BSM60</td>
<td>Human Relations in Business</td>
<td>54</td>
</tr>
<tr>
<td>VOC BSM61</td>
<td>Business Organization and Management</td>
<td>54</td>
</tr>
<tr>
<td>VOC BSM62</td>
<td>Human Resource Management</td>
<td>54</td>
</tr>
<tr>
<td>VOC BSS36</td>
<td>Principles of Marketing</td>
<td>54</td>
</tr>
</tbody>
</table>

**Total Hours:** 198

### 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 career. 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. Courses are offered on an annual basis, and each level of Business Management emphasis can be completed in one semester.

**Certificate Requirements:**

<table>
<thead>
<tr>
<th>Course ID</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>VOC BSM60</td>
<td>Human Relations in Business</td>
<td>54</td>
</tr>
<tr>
<td>VOC BSM61</td>
<td>Business Organization and Management</td>
<td>54</td>
</tr>
<tr>
<td>VOC BSM62</td>
<td>Human Resource Management</td>
<td>54</td>
</tr>
<tr>
<td>VOC CISB15</td>
<td>Microcomputer Applications</td>
<td>72</td>
</tr>
</tbody>
</table>

**Total Hours:** 162

### Business Management – Level 3  
**SYS #965642**

Upon completion of the Business Management – Level 3 Certificate, students will have built a foundation of management strategies and practices which will enable them to prosper in an ever-changing business environment. 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 Business Management emphasis can be completed in one semester.

**Certificate Requirements:**

<table>
<thead>
<tr>
<th>Course ID</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>VOC BSM20</td>
<td>Principles of Business</td>
<td>54</td>
</tr>
<tr>
<td>VOC BSM60</td>
<td>Human Relations in Business</td>
<td>54</td>
</tr>
<tr>
<td>VOC BSM61</td>
<td>Business Organization and Management</td>
<td>54</td>
</tr>
<tr>
<td>VOC BSM62</td>
<td>Human Resource Management</td>
<td>54</td>
</tr>
</tbody>
</table>

**Total Hours:** 180

### 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. Courses are offered on an annual basis, and the Human Resource Management Certificate can be completed in one semester.

**Certificate Requirements:**

<table>
<thead>
<tr>
<th>Course ID</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>VOC BSM20</td>
<td>Principles of Business</td>
<td>54</td>
</tr>
<tr>
<td>VOC BSM60</td>
<td>Human Relations in Business</td>
<td>54</td>
</tr>
<tr>
<td>VOC BSM61</td>
<td>Business Organization and Management</td>
<td>54</td>
</tr>
<tr>
<td>VOC BSM62</td>
<td>Human Resource Management</td>
<td>54</td>
</tr>
</tbody>
</table>

**Total Hours:** 162

### International Business – Level 1  
**SYS #665499**

This specialized business certificate is intended to prepare the student to work in the unique and dynamic environment of international business. The program also prepares the student 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. Courses are offered on an annual basis, and each level of International Business emphasis can be completed in one semester.

**Certificate Requirements:**

<table>
<thead>
<tr>
<th>Course ID</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>VOC BSM20</td>
<td>Principles of Business</td>
<td>54</td>
</tr>
<tr>
<td>VOC BSM36</td>
<td>Principles of International Business</td>
<td>54</td>
</tr>
<tr>
<td>VOC BSS36</td>
<td>Principles of Marketing</td>
<td>54</td>
</tr>
</tbody>
</table>

**Total Hours:** 162

### 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. Courses are offered on an annual basis, and each level of International Business emphasis can be completed in one semester.

**Certificate Requirements:**

<table>
<thead>
<tr>
<th>Course ID</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>VOC BSM20</td>
<td>Principles of Business</td>
<td>54</td>
</tr>
<tr>
<td>VOC BSM60</td>
<td>Human Relations in Business</td>
<td>54</td>
</tr>
<tr>
<td>VOC BSM61</td>
<td>Business Organization and Management</td>
<td>54</td>
</tr>
<tr>
<td>VOC BSM62</td>
<td>Human Resource Management</td>
<td>54</td>
</tr>
</tbody>
</table>

**Total Hours:** 162
Community Education

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 prepares students for 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:
Course ID Course Title Hours
VOC BSM20 Principles of Business 54
VOC BSM66 Small Business Management 54
VOC BSS36 Principles of Marketing 54
Total Hours 162

Small Business Management – Level 2
SYS #2511547
The Small Business Management – Level 2 Certificate provides students with practical small business tools. It focuses on issues such as motivation, teamwork and leadership skills that lead to enhanced productivity through the development of people. The Department has sequenced courses to maximize student time, and there are four emphasis areas: Business Management, Human Resource Management, International Business or Small Business Management. Courses are offered on an annual basis, and each level of Small Business Management emphasis can be completed in one semester.

Certificate Requirements:
Course ID Course Title Hours
VOC BSM20 Principles of Business 54
VOC BSM66 Small Business Management 54
VOC BSS36 Principles of Marketing 54
Total Hours 162

Small Business Management – Level 3
SYS #Pending
Upon completion of the Small Business Management – Level 3 Certificate, the student will have built a foundation of management strategies and practices which enable them to prosper in an ever-changing small business environment. The Department has sequenced courses to maximize student time, and there are four emphasis areas: Business Management, Human Resource Management, International Business or Small Business Management. Courses are offered on an annual basis, and each level of Small Business Management emphasis can be completed in one semester.

Certificate Requirements:
Completion of:
Small Business Management – Level 1 (162 hours)
Small Business Management – Level 2 (162 hours)
PLUS the following:
Course ID Course Title Hours
VOC BSM7 Principles of Accounting – Financial 90
VOC BSM10 Principles of Continuous Quality Improvement 54
VOC CISB15 Microcomputer Applications 72
Total Hours 216

Computer and Networking Technology – Level 1
SYS #31658
This certificate is intended to prepare students to enter the computer and networking fields as service technicians with foundations in basic electronics, telecommunications, computer servicing and networking servicing. This sequence is offered annually and can be completed in two years. Students are guided by written information regarding term offerings and correct course selection.

Certificate Requirements:
Completion of Small Business Management – Level 1 (162 hours)
Course ID Course Title Hours
VOC BSM60 Human Relations in Business 54
VOC BSM61 Business Organization and Management 54
VOC BSM62 Human Resource Management 54
Total Hours 162

Certificate Requirements:
Course ID Course Title Hours
VOC CNET50 PC Servicing 72
VOC CNET52 PC Operating Systems 72
VOC CNET54 PC Troubleshooting 72
VOC CNET60 A+ Certification Preparation 54
VOC EL11 Technical Applications in Microcomputers, or
VOC CISB15 Microcomputer Applications 72
VOC EL50A Electronics Theory 36
VOC EL50A1 Electronics Laboratory 18
VOC EL50B Electronics Theory 36
VOC EL50B1 Electronics Laboratory 18
VOC EL56 Digital Electronics 54
VOC EL56L Digital Electronics Laboratory 18
VOC EL56L1 Digital Electronics Laboratory 18
VOC EL61 Electronics Assembly and Fabrication 36
VOC EL74 Microprocessor Systems 54
VOC EL74L Microprocessor Systems Laboratory 18
VOC EL85A Mathematics of Electronics 36
VOC EL85B Mathematics of Electronics 36
Total Hours 576

Computer Systems Technology
SYS #622137
The Computer Systems Technology curriculum encompasses advanced coursework in computer systems technology. This includes microprocessor programming codes and microprocessor interfacing circuits. This sequence is offered annually and can be completed in two years. Students are guided by written information regarding term offerings and correct course selection.

Certificate Requirements:
Course ID Course Title Hours
VOC EL11 Technical Applications in Microcomputers 54
VOC EL12 Computer Simulation and Troubleshooting 36
VOC EL50A Electronics Theory 36
VOC EL50A1 Electronics Laboratory 18
VOC EL50B Electronics Theory 36
VOC EL50B1 Electronics Laboratory 18
VOC EL51 Electronic Devices Theory 54
VOC EL51L Electronic Devices Laboratory 18
VOC EL56 Digital Electronics 54
VOC EL56L Digital Electronics Laboratory 18
VOC EL61 Electronics Assembly and Fabrication 36
VOC EL74 Microprocessor Systems 54
VOC EL74L Microprocessor Systems Laboratory 18
VOC EL85A Mathematics of Electronics 36
VOC EL85B Mathematics of Electronics 36
Total Hours 360

Electronic Cabling and Wiring Technology Level – 1
SYS #365847
This certificate provides skills in the areas of low voltage cable and wire installations used in the telephone industry, computer networks, home theater, automation and security systems. This Level 1 certificate can be completed in one semester. If the student continues with course work, he/she can also complete Level 2 in one semester. Currently, the sequence is offered annually. The College offers this program in cooperation with the Pomona Unified School District – Village Academy.

Certificate Requirements:
Course ID Course Title Hours
VOC EST50 Electrical Fundamentals for Cable Installations 72
VOC EST52 Fabrication Techniques for Cable Installations 72
VOC EL11 Technical Applications in Microcomputers, or
VOC CISB15 Microcomputer Applications 72
Total Hours 270

Electronic Cabling and Wiring Technology Level – 2
SYS #582715
This certificate provides skills in the areas of low voltage cable and wire installations used in the telephone industry, computer networks, home theater, home automation and security systems. Level 2 certification includes customer relations and advanced skills at the system level in voice, data and video cable, and wire systems and the setup, maintenance, and troubleshooting of home theatre systems, home automation and security systems.
Level 2 is a continuation of Level 1 and can be completed in one semester. This sequence is offered annually in cooperation with the Pomona Unified School District – Village Academy.

**Certificate Requirements:**
Competition of Electronic Cabling and Wiring Technology Level 1 Certificate (270 hours)

<table>
<thead>
<tr>
<th>Course ID</th>
<th>Course Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>VOC EST54</td>
<td>Cabling and Wiring Standards</td>
<td>72</td>
</tr>
<tr>
<td>VOC EST56</td>
<td>Home Theater and Home Automation Systems</td>
<td>72</td>
</tr>
<tr>
<td>VOC EL60</td>
<td>Customer Relations for the Technician</td>
<td>18</td>
</tr>
<tr>
<td></td>
<td><strong>Total Hours</strong></td>
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</tbody>
</table>

**Recommended Electives:**
VOC EL61 Electronic Assembly and Fabrication and Rework
VOC EL62 Advanced Surface Mount Assembly and Rework

**Electronic Systems Technology – Level 1**
SYS #Pending

Develops skills in electrical fundamentals, fabrication techniques, cabling and wiring standards for cable and wire systems (copper, coax, fiber and structured cables) and basic computer skills in word processing, spreadsheets, database and the Internet. Courses are offered Fall and Spring semesters and the certificate can be completed in one year.

**Certificate Requirements:**

<table>
<thead>
<tr>
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<th>Course Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>VOC EST50</td>
<td>Electrical Fundamentals for Cable Installations</td>
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<td>Fabrication Techniques for Cable Installations</td>
<td>108</td>
</tr>
<tr>
<td>VOC EST54</td>
<td>Cabling and Wiring Standards</td>
<td>108</td>
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<tr>
<td>VOC EL11</td>
<td>Technical Applications in Microcomputers</td>
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<tr>
<td>VOC CSB15</td>
<td>Microcomputer Applications</td>
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</table>

**Electronic Systems Technology – Level 2**
SYS #Pending

This Level 2 certificate builds on the skills and concepts learned in level 1 and adds customer relations (soft skills) and the installation, calibration, setup, maintenance and troubleshooting of home theater systems, home automation and home security systems. Courses in the sequence are offered Fall and Spring semesters, and the certificate can be completed in one year.

**Certificate Requirements:**

<table>
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**Recommended Electives:**

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<tr>
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<tr>
<td>VOC TCH60</td>
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<tr>
<td>VOC EST64</td>
<td>Electronic Troubleshooting – 1</td>
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<td>VOC EST70</td>
<td>C-7 Low Voltage Systems License Preparation</td>
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<tr>
<td>VOC EL61</td>
<td>Electronic Assembly and Fabrication</td>
<td>72</td>
</tr>
<tr>
<td>VOC EL62</td>
<td>Advanced Surface Mount Assembly and Rework</td>
<td>72</td>
</tr>
<tr>
<td></td>
<td><strong>Total Hours</strong></td>
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</table>

**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. The sequence of courses is offered annually. The certificate can be completed in two years. Jobs include, but are not limited to:
- Electrical and Electronics Installers and Repair
- Electrical and Electronic Engineering Technician
- Electrical and Electronic Equipment Assemblers

**Certificate Requirements:**

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<tbody>
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<tr>
<td>VOC EST62</td>
<td>Electronic Troubleshooting – 1</td>
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<tr>
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</tr>
<tr>
<td>VOC EST64</td>
<td>Electronic Troubleshooting – 2</td>
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<tr>
<td>VOC EST70</td>
<td>C-7 Low Voltage Systems License Preparation</td>
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<tr>
<td>VOC EL61</td>
<td>Electronic Assembly and Fabrication</td>
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<td>VOC EL62</td>
<td>Advanced Surface Mount Assembly and Rework</td>
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<tr>
<td>VOC EL62</td>
<td>Advanced Surface Mount Assembly and Rework</td>
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**Recommended Electives:**

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<td><strong>Total Hours</strong></td>
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</table>

**Electronics Communications**
SYS #742582

This certificate encompasses advanced coursework in electronics communications including both land-based and wireless forms of communication. The sequence can be completed in two years when taken part-time. Students are guided by written information regarding term offering and correct course selection.

**Certificate Requirements:**

<table>
<thead>
<tr>
<th>Course ID</th>
<th>Course Title</th>
<th>Hours</th>
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<tbody>
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<td>Technical Applications in Microcomputers</td>
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<tr>
<td>VOC EL12</td>
<td>Computer Simulation and Troubleshooting</td>
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<tr>
<td>VOC EL50A</td>
<td>Electronics Theory</td>
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<td>VOC EL50AL</td>
<td>Electronics Laboratory</td>
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<td>VOC EL50B</td>
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<td>VOC EL51</td>
<td>Electronic Devices Theory</td>
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<td>VOC EL51L</td>
<td>Electronic Devices Laboratory</td>
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<tr>
<td>VOC EL53</td>
<td>Communications Circuits Theory</td>
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<td>VOC EL55</td>
<td>Microwave Communications</td>
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<td>Microwave Communications Laboratory</td>
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<td>VOC EL56</td>
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<tr>
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<td><strong>Total Hours</strong></td>
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</table>

**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. The sequence of courses can be completed in two years if taken part-time. Courses are offered on an annual basis.

**Certificate Requirements:**

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<thead>
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<tbody>
<tr>
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<td><strong>Total Hours</strong></td>
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</table>
COMMUNITY EDUCATION

Community Education

VOC ELS0AL Electronics Laboratory 18
VOC ELS0B Electronics Theory 36
VOC ELS0BL Electronics Laboratory 18
VOC ELS1 Electronic Devices Theory 54
VOC ELS1L Electronic Devices Laboratory 18
VOC ELS4A Industrial Circuits Theory 54
VOC ELS4AL Industrial Circuits Laboratory 18
VOC ELS54 Industrial Electronic System 36
VOC ELS54BL Industrial Electronic System 18
VOC ELS6 Digital Electronics 54
VOC ELS6L Digital Electronics Laboratory 18
VOC EL61 Electronics Assembly and Fabrication 36
VOC ELM65A Mathematics of Electronics 36
VOC ELM65B Mathematics of Electronics 36

Total Hours 576

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 LVN or RN programs, course content may increase chances for successful admission and completion of nursing program curriculum. These courses meet the requirements for California state certification as a CNA. The program incorporates processing of the state application and administration of the NATAP test with same day official test results for the written and manual skills examination. Verification of successful passing of the NATAP test permits immediate eligibility for employment.

All coursework can be completed within 11 weeks. Offered in Fall or Spring semesters

Participants must
• provide their own transportation and be at least 16 years of age or have a work permit
• be able to meet expenses and responsibilities incurred as part of this program.
• demonstrate proficient English/ESL verbal and written communication skills to take written exams, communicate with clients and maintain a safe clinical environment

Certificate Requirements:
Course ID Course Title Hours
VOC HTH01 Certified Nursing Assistant 170
VOC HTH04 Acute Care Nursing Assistant 88
VOC HTH05 Health Careers Resource Center AR

Total Hours 258+ AR

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 employment in long term care only. For further information, please contact the Health Careers Resource Center, (909) 594-5611, ext. 4788.

Health Care Interpreting
SYS #425877

Regulatory changes in health care now require health care agencies to provide health services in a linguistically and culturally sensitive manner. The need for trained interpreters is growing rapidly. Utilization levels, within the field, are expanding with future opportunities for growth and mobility.

The Health Care Interpreting Certificate is an 11 month program, designed to train bilingual and bicultural students to develop the awareness, knowledge and skills for effective language interpretation in health care settings. Through academic preparation, practical skills training, and service in community-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.

Applicants should have advanced academic proficiency in English, both spoken and written, and should be equally proficient in their native language.

To enroll in this program, you must attend an information meeting and complete the English assessment process.

For further information and mailed announcements of meeting dates, call VESL Registration at (909) 594-5611, ext. 5236.

OCCUPATIONAL – MANUFACTURING TECHNOLOGY

Manufacturing Technology
SYS #219807

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. Courses are offered on an annual basis and this certificate can be completed in two years. There are many occupational titles and opportunities in this field.

Certificate Requirements:
Course ID Course Title Hours
VOC MFG11 Manufacturing Processes I 36
VOC MFG12 Manufacturing Processes II 36
VOC MFG17 3-D CAD – Mechanical Modeling 36
VOC MFG19 Parametric Solid Modeling for Manufacturing 36
VOC MFG38 MasterCAM I 36
VOC MFG38B Advanced MasterCAM 36
VOC MFG38C MasterCAM Solids 36
VOC MFG39 SurfCAM I 36
VOC MFG39B SurfCAM II 36
VOC MFG58 Blueprint Reading for Manufacturing 36
VOC MFG70 Technical Mathematics – Manufacturing Applications 36
VOC MFG85 Manual CNC (Computerized Numerical Control) Operations 36

Total Hours 576

PLUS – Select 2 courses from the following:
VOC MFG25 Advanced Parametric Solid Modeling for Manufacturing 36
VOC MFG27 AutoDesk Inventor 36
VOC WLD40 Introduction to Welding 36

MasterCAM
SYS #809999

This certificate provides a strong background in MasterCAM 2-D and 3-D, and SolidWorks software packages along with the necessary machine shop theory and practice to input sound functional data into the CAM system. The sequence can be completed in three semesters.

Certificate Requirements:
Course ID Course Title Hours
VOC MFG11 Manufacturing Processes I 36
VOC MFG19 Parametric Solid Modeling for Manufacturing 36
VOC MFG38 MasterCAM I 36
VOC MFG38B Advanced MasterCAM 36
VOC MFG38C MasterCAM Solids 36
VOC MFG39 SurfCAM I 36
VOC MFG39B SurfCAM II 36
VOC MFG58 Blueprint Reading for Manufacturing 36
VOC MFG70 Technical Mathematics – Manufacturing Applications 36
VOC MFG85 Manual CNC (Computerized Numerical Control) Operations 36

Total Hours 144

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. The sequence can be completed in three semesters.
### Certificate Requirements:

<table>
<thead>
<tr>
<th>Course ID</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>VOC MFG15</td>
<td>AutoCAD 2D</td>
<td>36</td>
</tr>
<tr>
<td>VOC MFG17</td>
<td>3-D CAD – Mechanical Modeling</td>
<td>36</td>
</tr>
<tr>
<td>VOC MFG19</td>
<td>Parametric Solid Modeling for</td>
<td>36</td>
</tr>
<tr>
<td></td>
<td>Manufacturing</td>
<td></td>
</tr>
<tr>
<td>VOC MFG25</td>
<td>Advanced Mechanical Desktop</td>
<td>36</td>
</tr>
<tr>
<td>VOC MFG27</td>
<td>AutoDesk Inventor</td>
<td>36</td>
</tr>
</tbody>
</table>

**Total Hours:** 216

#### 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 can be completed in one year and is a highly specialized occupation.

**Certificate Requirements:**

<table>
<thead>
<tr>
<th>Course ID</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>VOC MFG11</td>
<td>Manufacturing Processes I</td>
<td>36</td>
</tr>
<tr>
<td>VOC MFG39</td>
<td>SurfCAM I</td>
<td>36</td>
</tr>
<tr>
<td>VOC MFG39B</td>
<td>SurfCAM II</td>
<td>36</td>
</tr>
<tr>
<td>VOC MFG85</td>
<td>Manual CNC (Computerized Numerical Control Operations)</td>
<td>36</td>
</tr>
</tbody>
</table>

**Total Hours:** 144

#### Administrative Assistant – Level I

**SYS #736281**

Prepares students for entry-level clerical positions where keyboarding is the primary function. The sequence can be completed in one year and courses are offered both Fall and Spring semesters.

**Certificate Requirements:**

<table>
<thead>
<tr>
<th>Course ID</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>VOC BS05</td>
<td>Business English</td>
<td>54</td>
</tr>
<tr>
<td>VOC CP01</td>
<td>Computer Keyboarding, or</td>
<td>72</td>
</tr>
<tr>
<td>VOC CP01A</td>
<td>Computer Keyboarding, end,</td>
<td>36</td>
</tr>
<tr>
<td>VOC CP01B</td>
<td>Computer Keyboarding</td>
<td>36</td>
</tr>
<tr>
<td>VOC CP12</td>
<td>Office Computer Applications, or</td>
<td>72</td>
</tr>
<tr>
<td>VOC C5B15</td>
<td>Microcomputer Applications</td>
<td>72</td>
</tr>
<tr>
<td>VOC CP18</td>
<td>Data Entry</td>
<td>54</td>
</tr>
</tbody>
</table>

**Total Hours:** 396

#### 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. The sequence is offered annually and can be completed in one year.

**Certificate Requirements:**

<table>
<thead>
<tr>
<th>Course ID</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>VOC CP02</td>
<td>Intermediate Computer</td>
<td>72</td>
</tr>
<tr>
<td>VOC CP12</td>
<td>Office Computer Applications, or</td>
<td>72</td>
</tr>
<tr>
<td>VOC C5B15</td>
<td>Microcomputer Applications</td>
<td>72</td>
</tr>
<tr>
<td>VOC CP18</td>
<td>Data Entry</td>
<td>54</td>
</tr>
</tbody>
</table>

**Total Hours:** 288

#### Desktop Publishing

**SYS #162526**

This sequence of courses will afford career opportunities in businesses desiring desktop publishing skills. The certificate can be completed in one year and courses are offered annually, including Summer and Winter Intersessions.

<table>
<thead>
<tr>
<th>Course ID</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>VOC BS05</td>
<td>Business English</td>
<td>54</td>
</tr>
<tr>
<td>VOC CP01</td>
<td>Computer Keyboarding, or</td>
<td>72</td>
</tr>
<tr>
<td>VOC CP01A</td>
<td>Computer Keyboarding, end,</td>
<td>36</td>
</tr>
<tr>
<td>VOC CP01B</td>
<td>Computer Keyboarding</td>
<td>36</td>
</tr>
<tr>
<td>VOC CP12</td>
<td>Office Computer Applications, or</td>
<td>72</td>
</tr>
<tr>
<td>VOC C5B15</td>
<td>Microcomputer Applications</td>
<td>72</td>
</tr>
<tr>
<td>VOC CP28</td>
<td>Office Management Skills</td>
<td>54</td>
</tr>
<tr>
<td>VOC CP68</td>
<td>Transcription Techniques</td>
<td>54</td>
</tr>
<tr>
<td>VOC HLTH12</td>
<td>Medical Terminology</td>
<td>54</td>
</tr>
</tbody>
</table>

**Total Hours:** 270

#### Medical Office Specialist

**Certificate #50523**

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. This sequence is offered on an annual basis and can be completed in two years.

**Certificate Requirements:**

<table>
<thead>
<tr>
<th>Course ID</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>VOC BS27</td>
<td>Bookkeeping – Accounting</td>
<td>90</td>
</tr>
<tr>
<td>VOC BS05</td>
<td>Business English</td>
<td>54</td>
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<tr>
<td>VOC BSO 25</td>
<td>Business Communications</td>
<td>54</td>
</tr>
<tr>
<td>VOC CP01</td>
<td>Computer Keyboarding</td>
<td>72</td>
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<tr>
<td>VOC CP02</td>
<td>Intermediate Computer Keyboarding</td>
<td>72</td>
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<tr>
<td>VOC CP12</td>
<td>Office Computer Applications, or</td>
<td>72</td>
</tr>
<tr>
<td>VOC C5B15</td>
<td>Microcomputer Applications</td>
<td>72</td>
</tr>
<tr>
<td>VOC CP18</td>
<td>Data Entry</td>
<td>54</td>
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<tr>
<td>VOC CP20</td>
<td>Microsoft Word, or</td>
<td>72</td>
</tr>
<tr>
<td>VOC CP28</td>
<td>Office Management Skills</td>
<td>54</td>
</tr>
<tr>
<td>VOC CP68</td>
<td>Transcription Techniques</td>
<td>54</td>
</tr>
<tr>
<td>VOC HLTH12</td>
<td>Medical Terminology</td>
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</table>

**Total Hours:** 774

### Medical Office Specialist

**Certificate Requirements:**

<table>
<thead>
<tr>
<th>Course ID</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>VOC BS27</td>
<td>Bookkeeping – Accounting</td>
<td>90</td>
</tr>
<tr>
<td>VOC BS05</td>
<td>Business English</td>
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</tr>
<tr>
<td>VOC BSO 25</td>
<td>Business Communications</td>
<td>54</td>
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<tr>
<td>VOC CP01</td>
<td>Computer Keyboarding</td>
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<td>VOC CP02</td>
<td>Intermediate Computer Keyboarding</td>
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</tr>
<tr>
<td>VOC CP12</td>
<td>Office Computer Applications, or</td>
<td>72</td>
</tr>
<tr>
<td>VOC C5B15</td>
<td>Microcomputer Applications</td>
<td>72</td>
</tr>
<tr>
<td>VOC CP18</td>
<td>Data Entry</td>
<td>54</td>
</tr>
<tr>
<td>VOC CP20</td>
<td>Microsoft Word, or</td>
<td>72</td>
</tr>
<tr>
<td>VOC CP28</td>
<td>Office Management Skills</td>
<td>54</td>
</tr>
<tr>
<td>VOC CP68</td>
<td>Transcription Techniques</td>
<td>54</td>
</tr>
<tr>
<td>VOC HLTH12</td>
<td>Medical Terminology</td>
<td>54</td>
</tr>
</tbody>
</table>

**Total Hours:** 774

### 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. This sequence of courses can be completed in one year and is offered on an annual basis.

**Certificate Requirements:**

<table>
<thead>
<tr>
<th>Course ID</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>VOC CP-BC1</td>
<td>Basic Computing – Level 1</td>
<td>51</td>
</tr>
<tr>
<td>VOC CP-BC2</td>
<td>Basic Computing – Level 2</td>
<td>48</td>
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<tr>
<td>VOC CP-BC3</td>
<td>Basic Computing – Level 3</td>
<td>48</td>
</tr>
<tr>
<td>VOC CP-NET</td>
<td>Internet Research – An Introduction</td>
<td>23</td>
</tr>
<tr>
<td>VOC CP-CC</td>
<td>Creative Computing</td>
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</tbody>
</table>

**Total Hours:** 221

### OCCUPATIONAL – PHOTOGRAPHICS

#### Computer Graphics Design / Photography

**SYS #235898**

This certificate will enable the student to develop specific computer skills needed for employment. The Computer Graphics Certificate is an option under the Photography program. The sequence can be completed in one year full-time or two years part-time. Employment will vary among several industries such as computer gaming, movie production, music video production, commercials and animation.

**Certificate Requirements:**

<table>
<thead>
<tr>
<th>Course ID</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>VOC GRP1</td>
<td>Computer Graphics Lab</td>
<td>18</td>
</tr>
<tr>
<td>VOC GRP10</td>
<td>Photo Editing with Photoshop</td>
<td>54</td>
</tr>
<tr>
<td>VOC GRP12</td>
<td>Advanced Photo Editing with Photoshop</td>
<td>54</td>
</tr>
<tr>
<td>VOC GRP14</td>
<td>Digital Color Management</td>
<td>54</td>
</tr>
<tr>
<td>VOC GRP16</td>
<td>Digital Image Design with Illustrator &amp; Freehand</td>
<td>54</td>
</tr>
<tr>
<td>VOC GRP20</td>
<td>Applying Photos and Images in Multimedia</td>
<td>54</td>
</tr>
<tr>
<td>VOC GRP28</td>
<td>Digital Portfolio</td>
<td>36</td>
</tr>
<tr>
<td>VOC PHO10</td>
<td>Basic Digital and Film Photography</td>
<td>54</td>
</tr>
<tr>
<td>VOC PHO17</td>
<td>Photocommunications</td>
<td>54</td>
</tr>
</tbody>
</table>

**Total Hours:** 432
Community Education

Recommended Electives:
The Photographics faculty recommends that you complement your studies with selected elective courses listed below. You should meet with a professor of Computer Graphics Design/Photography to help you determine which electives would best suit your career plans.

<table>
<thead>
<tr>
<th>Course ID</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>VOC CP10</td>
<td>Operating the Macintosh Computer</td>
<td>36</td>
</tr>
<tr>
<td>VOC PH001</td>
<td>Laboratory Studies: Black and White Photography</td>
<td>54</td>
</tr>
<tr>
<td>VOC PH002</td>
<td>Laboratory Studies: Color Photography</td>
<td>54</td>
</tr>
<tr>
<td>VOC PH004</td>
<td>Digital Cameras and Composition</td>
<td>54</td>
</tr>
</tbody>
</table>

Photography
SYS #320382
This certificate is designed to prepare students to develop specific skills needed for employment in photography, art, cinema/animation, communications, industrial arts, graphics and journalism. The sequence of courses is offered on an annual basis and the certificate can be completed in two years.

Certificate Requirements:

<table>
<thead>
<tr>
<th>Course ID</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>VOC GRP10</td>
<td>Photo Editing with Photoshop</td>
<td>54</td>
</tr>
<tr>
<td>VOC PH010</td>
<td>Basic Digital and Film Photography</td>
<td>54</td>
</tr>
<tr>
<td>VOC PH011</td>
<td>Advanced Professional Photography</td>
<td>72</td>
</tr>
<tr>
<td>VOC PH012</td>
<td>Photographic Alternatives</td>
<td>54</td>
</tr>
<tr>
<td>VOC PH021</td>
<td>Exploring Color Photography</td>
<td>54</td>
</tr>
<tr>
<td>VOC PH016</td>
<td>Fashion Photography, or</td>
<td>54</td>
</tr>
<tr>
<td>VOC PH018</td>
<td>Portraiture and Wedding Photography</td>
<td>54</td>
</tr>
<tr>
<td>VOC PH017</td>
<td>Photocommunication</td>
<td>54</td>
</tr>
<tr>
<td>VOC PH020</td>
<td>Color Photography</td>
<td>54</td>
</tr>
<tr>
<td>VOC PH028</td>
<td>Photography Portfolio Development</td>
<td>36</td>
</tr>
<tr>
<td>VOC PH030</td>
<td>Commercial and Illustrative Photography</td>
<td>54</td>
</tr>
</tbody>
</table>

Total Hours 594

Recommended Electives:
The Photographics faculty recommends that you complement your studies with selected elective courses listed below. You should meet with a professor of Computer Graphics Design/Photography to help you determine which electives would best suit your career plans.

<table>
<thead>
<tr>
<th>Course ID</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>VOC GRP12</td>
<td>Advanced Photo Editing with Photoshop</td>
<td>54</td>
</tr>
<tr>
<td>VOC PH001</td>
<td>Laboratory Studies: Black and White Photography</td>
<td>54</td>
</tr>
<tr>
<td>VOC PH002</td>
<td>Laboratory Studies: Color Photography</td>
<td>54</td>
</tr>
<tr>
<td>VOC PH015</td>
<td>History of Photography</td>
<td>54</td>
</tr>
</tbody>
</table>

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. The sequence can be completed in one year and is offered on an annual basis.

Certificate Requirements:

<table>
<thead>
<tr>
<th>Course ID</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>VOC CIS-GO</td>
<td>Computer Operations</td>
<td>480</td>
</tr>
<tr>
<td>VOC MFG-AR</td>
<td>Assembly/Repair Skills</td>
<td>480</td>
</tr>
</tbody>
</table>

Total Hours 960

OCCUPATIONAL – WELDING TECHNOLOGIES

Welding
SYS #340189
This certificate is designed to prepare students for employment in the broad field of welding, leading to occupations in manufacturing, repair and construction. It prepares students to test for the Structural Welding Certificate and can be completed in one year.

Certificate Requirements:

<table>
<thead>
<tr>
<th>Course ID</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>VOC WLD40</td>
<td>Introduction to Welding</td>
<td>36</td>
</tr>
<tr>
<td>VOC WLD50</td>
<td>Oxyacetylene Welding</td>
<td>36</td>
</tr>
<tr>
<td>VOC WLD51</td>
<td>Basic Electric Arc Welding</td>
<td>36</td>
</tr>
<tr>
<td>VOC WLD53A</td>
<td>Welding Metallurgy</td>
<td>54</td>
</tr>
<tr>
<td>VOC WLD60</td>
<td>Print Reading and Computations for Welders</td>
<td>54</td>
</tr>
<tr>
<td>VOC WLD70A</td>
<td>Beginning Arc Welding</td>
<td>54</td>
</tr>
<tr>
<td>VOC WLD70B</td>
<td>Intermediate Arc Welding</td>
<td>54</td>
</tr>
<tr>
<td>VOC WLD70C</td>
<td>Certification for Welding</td>
<td>54</td>
</tr>
<tr>
<td>VOC WLD80</td>
<td>Fabrication and Construction</td>
<td>54</td>
</tr>
</tbody>
</table>

Total Hours 486

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.

<table>
<thead>
<tr>
<th>Course ID</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>VOC MFG70</td>
<td>Technical Mathematics – Manufacturing Applications</td>
<td>54</td>
</tr>
<tr>
<td>VOC WLD60</td>
<td>Print Reading and Computations for Welders</td>
<td>54</td>
</tr>
<tr>
<td>VOC WLD70C</td>
<td>Certification for Welders</td>
<td>54</td>
</tr>
</tbody>
</table>

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

Certificate Requirements:

<table>
<thead>
<tr>
<th>Course ID</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>VOC WLD40</td>
<td>Introduction to Welding</td>
<td>36</td>
</tr>
<tr>
<td>VOC WLD50</td>
<td>Oxyacetylene Welding</td>
<td>36</td>
</tr>
<tr>
<td>VOC WLD51</td>
<td>Basic Electric Arc Welding</td>
<td>36</td>
</tr>
<tr>
<td>VOC WLD53A</td>
<td>Welding Metallurgy</td>
<td>54</td>
</tr>
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<td>Print Reading and Computations for Welders</td>
<td>54</td>
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<td>54</td>
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<td>VOC WLD70B</td>
<td>Intermediate Arc Welding</td>
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</tr>
<tr>
<td>VOC WLD70C</td>
<td>Certification for Welding</td>
<td>54</td>
</tr>
<tr>
<td>VOC WLD80</td>
<td>Fabrication and Construction</td>
<td>54</td>
</tr>
</tbody>
</table>

Total Hours 486

Welder with Concentration in Gas Tungsten Arc, Welding
SYS # Pending
Preparation as a Licensed Welder with additional skills and theoretical development in gas tungsten ARC welding.

Certificate Requirements:
Completion of Licensed Welder Certificate (486 hours)

Welder with Concentration in Semiautomatic ARC, Welding
SYS # Pending
Preparation as a Licensed Welder with additional skills and theoretical development in Semiautomatic ARC Welding.

Certificate Requirements:
Completion of Licensed Welder Certificate (486 hours)

Welder with Concentration in Automotive Welding, Cutting & Modification
SYS # Pending
Preparation as a Licensed Welder with additional skills and theoretical development in automotive welding, cutting and modification.

Certificate Requirements:
Completion of Licensed Welder Certificate (486 hours)

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## Basic Skills

<table>
<thead>
<tr>
<th>Course</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adult Basic Education</td>
<td>227</td>
</tr>
<tr>
<td>Adult Basic Education – Leadership Development</td>
<td>227</td>
</tr>
<tr>
<td>Basic Skills Development – Reading &amp; Writing</td>
<td>227</td>
</tr>
<tr>
<td>Basic Skills Foundation</td>
<td>227</td>
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<tr>
<td>Career Development</td>
<td>227</td>
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<tr>
<td>Career Information and Guidance</td>
<td>227</td>
</tr>
<tr>
<td>Career/Life Planning</td>
<td>227</td>
</tr>
<tr>
<td>Developmental Mathematics – Concepts and Application</td>
<td>227</td>
</tr>
<tr>
<td>Guidance and Orientation to Special Programs</td>
<td>227</td>
</tr>
<tr>
<td>Re-Entry Work Skills Needed for Today's Workforce</td>
<td>227</td>
</tr>
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</table>

## Basic Skills – Review

<table>
<thead>
<tr>
<th>Course</th>
<th>Page</th>
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<tbody>
<tr>
<td>Improving Reading Comprehension</td>
<td>227</td>
</tr>
<tr>
<td>Improving Writing</td>
<td>227</td>
</tr>
<tr>
<td>Language Skills Laboratory</td>
<td>227</td>
</tr>
<tr>
<td>Learning Support Laboratory</td>
<td>227</td>
</tr>
<tr>
<td>Math Skills Review</td>
<td>227</td>
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<tr>
<td>Personal Computer Applications</td>
<td>227</td>
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<tr>
<td>Reading Acceleration</td>
<td>227</td>
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<td>Short-Term Review</td>
<td>227</td>
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## Basic Skills – Secondary Education (High School)

<table>
<thead>
<tr>
<th>Course</th>
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**NONCREDIT COURSE LISTINGS (continued)**
### BASIC SKILLS

**BCSK ABE01 — Career Information and Guidance**
Orientation to the college including enrollment procedures, test score interpretation, course selection, and career information. Course includes Academic placement tests and/or vocational assessments available.

**BCSK ABE02 — Adult Basic Education**
Improves basic skills of adult learners. Content includes reading comprehension, language, and mathematics. Prepares students for the General Education Development (GED) Exam and the Armed Services Vocational Aptitude Batter (ASVAB) exam.

**BCSK ABE03 — Adult Basic Education — Leadership Development**
Leadership styles and individual leadership skills including effective communication, facilitation, problem-solving, decision-making and conflict resolution. Introduction to organizational structures, governance, models and group process.

**BCSK ABE04 — Guidance and Orientation to Special Programs**
Provides an overview of special programs at Mt. San Antonio College. Information regarding the College’s mission, program guidelines, regulations, and eligibility requirements are presented.

**BCSK ABE05 — Career Development**
Career assessment, research and preparation; investigates career fields to determine interest; provides information on required skills and areas for professional growth. Includes assigned time for field investigation, individual assessment and skill building.

**BCSK ABE06 — Basic Skills Foundation**
Preparation for college credit courses. Improves reading, mathematics, writing, and critical thinking by assessing current skills. Includes individual education plan to achieve career and educational goals.

**BCSK ABE07 — Re-Entry Work Skills Needed for Today’s Workforce**
Development of skills necessary for employment. Topics include workplace ethics, job search techniques, resume writing and preparing for an interview.

**BCSK CNSL05 — Career/Life Planning**

**BCSK MATH01 — Developmental Mathematics — Concepts and Application**
Hands-on activities and practical applications of algebraic principles: elementary geometry, signed numbers, ratio and proportion, factoring, pre-algebra, linear and quadratic equations, complex numbers, graphing, functions, sequences, linear and non-linear inequalities and systems, progressions, and sigma notation.

**BCSK WRTRE2 — Basic Writing Skills Development — Basic Skills Development in Reading and Writing**
Enhance basic skills in reading and writing, via the use of computer-assisted learning, e-mail and online tools.

**BCSK LERN01 — Short Term Review**
Intensive review in the following subjects: reading, comprehension, vocabulary, grammar, basic math, pre-algebra, and algebra. Computer programs, instructional materials, and individual assistance are provided.

**BCSK LERN03 — Math Skills Review**
Increase basic math knowledge and reduce math anxiety. Topics include fractions, decimals, ratios, proportions, percents, and the application of these skills in life and work situations.

**BCSK LERN04 — Personal Computer Applications**
Increase typing and ten-key speed using computer software. Includes current word processing, spreadsheet, database software, keyboarding techniques, including correct posture; introduction to e-mail and the Internet; time management, decision-making, problem-solving and creative thinking.

**BCSK LERN05 — Learning Support Laboratory**
Learning and workplace skills are enhanced by computer use and instruction for students enrolled in or seeking enrollment in a college instructional program.

**BCSK LERN06 — Personal Computer Applications**
Provides instruction and practice in techniques of reading acceleration and variable reading speeds. Students who repeat will improve reading speed and comprehension rates.

**BCSK LERN72 — Reading Acceleration**
Provides instruction and practice in techniques of reading acceleration and variable reading speeds. Students who repeat will improve reading speed and comprehension rates.

**BCSK LERN76 — Improving Reading Comprehension**
Prepares students for reading informational materials. Topics include spelling, reading comprehension, dictionary usage and how to read a textbook.

**BCSK LERN81 — Improving Writing**
Offers assistance to students who wish to improve prewriting, writing, editing and revising. Provides instruction in content and structure of sentences, paragraphs and essays; emphasizes development in writing through the integration of grammar and critical thinking.

**BCSK WRTE2 — Basic Writing Skills Development — Basic Skills Development in Reading and Writing**
Enhance basic skills in reading and writing, via the use of computer-assisted learning, e-mail and online tools.

**BCSK HSADR06 — 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.

**BCSK HSDR01 — High School Chinese 1**
Introduces students to Chinese language and culture for high school students. Course includes pronunciation and grammar, practical vocabulary, and culture of Chinese-speaking countries for high school students.
COMMUNITY EDUCATION

BCSK HSCIV — 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.

BCSK HSCTPC — High School Computer Technology
Includes proper technique and operations using a computer, introduction to the computer operating system, basic hardware configuration and office technology programs; document creation and editing using Microsoft Office (Word, Excel, PowerPoint); word processing, database management, spreadsheets and multimedia presentation for high school students.

BCSK HSDIPR — 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.

BCSK HSECON — High School Economics
Economic principles and practices for high school students. Includes scarcity and choice, opportunity cost and trade-offs, economic systems, institutions and incentives. Markets and prices, supply and demand, competition income distribution, monetary policy, international economics and the role of government.

BCSK HSELA — 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.

BCSK HSEMRA — CAHSEE Prep — Mathematics
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.

BCSK HSENG1 — High School English 1
Introduces high school students to the foundations of literature using genre and theme experiences. Includes exploration of folk tradition, poetry, fiction, nonfiction and informational and visual media. Vocabulary development, writing strategies and applications, reading comprehension, listening and speaking strategies, language conventions, listening and speaking applications, literary response and analysis.

BCSK HSENG2 — 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 applications, reading comprehension, listening and speaking strategies, language convention, listening and speaking applications, literary response and analysis.

BCSK HSENG3 — High School English 3
Foundations of literature through American literature using a historical approach for high school students. Includes basic literature genres and techniques, and time-period based literature. Pre-colonial era, the American Revolution, the New England Renaissance, Slavery and the Civil War, the Frontier Era, the Modern Era, the Harlem Renaissance and Modern Drama.

BCSK HSENG4 — 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.

BCSK HSGEOG — 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.

BCSK HSGEDM — 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.

BCSK HSGRAPH — Advanced High School 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.

BCSK HSHELTH — High School Health Education
Increases high school students’ awareness of health issues, includes healthy behavior vs high-risk behavior; how health issues impact the community and environment. Uses skill-building approach that includes decision-making, role modeling, critical analysis, and goal-setting toward a healthy lifestyle.

BCSK HSJOUR — 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 abilities to critique newspapers and periodicals.

BCSK HSKEY — 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.

BCSK HSMSC — High School Music Appreciation
Historical, cultural and genre-based aesthetic valuing of music for high school students. Vocabulary, interaction of words and music, influence of religion, theater, government and culture on musical style.

BCSK HSNAT1 — High School Natural Science 1
Integration of biological, physical and earth science. Introduces high school students to 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.

BCSK HSNAT2 — High School Natural Science 2
Integration of advanced biological, physical and earth science. Introduces high school students to advanced scientific measurement and computation, the use of scientific laboratory equipment and basic scientific writing. Addresses overall skill sets in the areas of reading, writing and note-taking as it relates to science.

BCSK HSPIIL — 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.
<table>
<thead>
<tr>
<th>Course Code</th>
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<tbody>
<tr>
<td>BCSK HSPLNG</td>
<td>High School Planning and Guidance</td>
<td>Compliments existing school guidance and planning activities and motivates high school students to utilize those resources to their best advantage. Covers the challenges faced by students at the end of high school careers.</td>
</tr>
<tr>
<td>BCSK HSPREAl</td>
<td>High School Pre-Algebra</td>
<td>Designed to help high school students transition from arithmetic to algebra. Includes concepts, methods and applications of pre-algebra. Topics include operations with integers, expressions, equations, inequalities, percents, proportions, graphing, computational skills and problem-solving skills.</td>
</tr>
<tr>
<td>BCSK HSPSY</td>
<td>High School Psychology</td>
<td>Introduces high school students to the methods, facts and theories of the behavior and processes of human beings and animals. Includes theories and characteristics of the history of psychology, research and statistics, child and adult development, sensations, perceptions, cognition, motivation, behavior, personality, abnormal behavior, individuality versus group identity and behavior and therapy.</td>
</tr>
<tr>
<td>BCSK HSSK</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>
</tr>
<tr>
<td>BCSK HSSCO</td>
<td>High School Sociology</td>
<td>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.</td>
</tr>
<tr>
<td>BCSK HSSPCH</td>
<td>High School Speech and Communication</td>
<td>Designed to develop the aspects of oral communication including voice, diction, poise and ease by preparation and practice in making small speeches, and participating in discussions, debates and oral interpretation. High school students will improve their writing and speaking organization through selection and arrangement of material, through transitions and rhetorical effect.</td>
</tr>
<tr>
<td>BCSK HSPLNG</td>
<td>High School Spanish 1 – Conversation and Writing</td>
<td>High School Spanish 1 – 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. Geographical, customs and culture of Spanish-speaking countries.</td>
</tr>
<tr>
<td>BCSK HSPLNG</td>
<td>High School Spanish 2</td>
<td>Designed for high school students to advance the fundamentals of pronunciation and grammar, practical vocabulary and the ability to understand, read, write and speak geography, customs, Spanish literature and culture of Spanish-speaking countries.</td>
</tr>
<tr>
<td>BCSK HSSS</td>
<td>High School Single Survival “On Your Own” – Preparation for Adult Living</td>
<td>Increases student knowledge and ability in skills necessary for everyday living. High school students determine goals and values, education choices, career options, money management, health care and personal needs.</td>
</tr>
<tr>
<td>BCSK HSTG</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 operations and stage management.</td>
</tr>
<tr>
<td>BCSK HSTT2</td>
<td>High School Topics in Algebra 2</td>
<td>Preparation for success in high school Algebra 2. Focuses on the basic and introductory concepts, formulas and standards of Algebra 2, including solutions of linear and quadratic equations, graphing, exponential functions and the complex number system.</td>
</tr>
<tr>
<td>BCSK HSTT2</td>
<td>High School Topics in Geometry</td>
<td>Preparation for success in high school geometry. Focuses on the basic and introductory concepts, formulas and standards of geometry, including points, lines, planes, angles, reasoning skills and proofs, perpendicular and parallel lines, triangles, quadrilaterals, polygons, area and volume.</td>
</tr>
<tr>
<td>BCSK HUSHS</td>
<td>High School United States History</td>
<td>Designed for high school students to study various themes in history in order to examine the past from pre-colonial to the modern era. Includes the examination of politics and history, the role of ideas, economics and history, and the importance of cultural development. Assessment of religion in history, the role of individuals, the impact of science and technology, the environment and history and social life.</td>
</tr>
<tr>
<td>BCSK HSVIDEO</td>
<td>High School Video and Media Production</td>
<td>Basics of video production and software. Includes storyboards, directing, filming, sounds, lighting, transitions, titles, voice-overs, music, film analysis, editing and producing software as appropriate for high school students.</td>
</tr>
<tr>
<td>BCSK HSWHS</td>
<td>High School World History</td>
<td>Gives high school students an understanding of humanity through the basic themes present in history: economics, politics, the roles of ideas, the importance of cultural development, religion, the roles of individuals, the impact of science and technology, geographical impact and cultural development. Students will also study pre-history to the modern era.</td>
</tr>
<tr>
<td>BCSK HSWREX</td>
<td>High School Expository Writing</td>
<td>Preparation for success in expository writing for high school students. Focuses on developing essay writing including introductory paragraphs, body paragraphs and concluding paragraphs in expository, descriptive, narrative and argumentative essays.</td>
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</table>

**BASIC SKILLS – TUTORING**

<table>
<thead>
<tr>
<th>Course Code</th>
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<tbody>
<tr>
<td>BCSK TTR10A</td>
<td>Introduction to Tutoring</td>
<td>Introduction to tutoring, with an emphasis on tutoring strategies, problem solving, and working with a diverse student population.</td>
</tr>
<tr>
<td>BCSK TTR10B</td>
<td>Tutoring in the Language Arts</td>
<td>Prerequisite: Permission of Tutorial Specialist Tutoring in the language arts with an emphasis on approaches to working with students on written drafts and addressing the needs of non-native speakers.</td>
</tr>
<tr>
<td>BCSK TTR10C</td>
<td>Tutoring as a Supplemental Instructor</td>
<td>Permission of Tutorial Specialist recommended Tutoring as a Supplemental Instructor with an emphasis on tutoring in the classroom and in small groups under the supervision of a designated instructor.</td>
</tr>
<tr>
<td>BCSK TTR10D</td>
<td>Tutoring in Mathematics</td>
<td>Tutoring in mathematics with an emphasis on strategies to promote active learning using mathematics and dealing with specific obstacles in developmental algebra.</td>
</tr>
<tr>
<td>BCSK TTR10E</td>
<td>All Subjects Tutoring</td>
<td>Assistance in basic English and mathematics skills through tutoring and computer-based learning. Tutorial assistance in other subject areas is also available.</td>
</tr>
<tr>
<td>BCSK TTR20</td>
<td>Tutoring Techniques</td>
<td>Explores learning theories and tutoring techniques for tutoring individuals and small groups. Emphasis is placed on encouraging independent learning.</td>
</tr>
</tbody>
</table>

**CITIZENSHIP**

<table>
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<tr>
<th>Course Code</th>
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</thead>
<tbody>
<tr>
<td>CITZ NATLZN</td>
<td>Citizenship for Naturalization</td>
<td>Intermediate and advanced students prepare for the interview for United States citizenship.</td>
</tr>
</tbody>
</table>
COMMUNITY EDUCATION

<table>
<thead>
<tr>
<th>COURSE</th>
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<tbody>
<tr>
<td><strong>ESL LVL-4 — ESL Level 4</strong></td>
<td>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.</td>
</tr>
<tr>
<td><strong>ESL LVL-5 — ESL Level 5</strong></td>
<td>Low advanced level students improve English communication and grammar understanding through practice of listening, speaking, reading and writing skills. Activities include team projects, presentations and exams, in preparation for academic/vocational success and encourage civic participation.</td>
</tr>
<tr>
<td><strong>ESL LVL-6 — ESL Level 6</strong></td>
<td>High advanced level students improve English communication skills and prepare to transition into academic, vocational, or general community classes. Activities include teamwork, projects, presentations and exams to ensure life-long learning, civic participation and overall success.</td>
</tr>
<tr>
<td><strong>ESL PLVL-1 — ESL Pre-Level 1</strong></td>
<td>Literacy-level English students build a base of vocabulary and grammar through practice of listening, speaking and reading skills.</td>
</tr>
<tr>
<td><strong>ESL SPK-A — ESL Speaking A</strong></td>
<td>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.</td>
</tr>
<tr>
<td><strong>ESL SPK-B — ESL Speaking B</strong></td>
<td>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.</td>
</tr>
<tr>
<td><strong>ESL SPK-C — ESL Speaking C</strong></td>
<td>Advanced level students expand listening and speaking strategies to facilitate academic preparation, workplace advancement, and civic participation. Focus is on fluency, grammatical accuracy and appropriate register. Activities include use of authentic material in group tasks and class presentations.</td>
</tr>
<tr>
<td><strong>ESL TOEFL — TOEFL Preparation</strong></td>
<td>Advanced ESL students improve grammar, speaking and writing in preparation for standardization tests such as TOEFL.</td>
</tr>
<tr>
<td><strong>ESL V-HLTH — English as a Second Language for Healthcare Professionals</strong></td>
<td>Advanced ESL students improve medical vocabulary and English skills for healthcare situations.</td>
</tr>
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**DISABLED STUDENTS**

<table>
<thead>
<tr>
<th>COURSE</th>
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<tbody>
<tr>
<td><strong>DSPS EDSE01 — Lifelong Learning for the Special Needs Population</strong></td>
<td>Educational activities for special needs students emphasizing physical, cognitive, social and emotional skill development.</td>
</tr>
<tr>
<td><strong>DSPS LERND1 — Clinical Speech Instruction</strong></td>
<td>Designed to accommodate individual and group instruction for adults with speech and/or learning problems. Includes individual evaluation and speech improvement plan. Disorders addressed include phonology, fluency, voice and resonance, hearing impairment, cerebral vascular accident and acquired brain injury. Instruction is not available for students with dialectal problems.</td>
</tr>
<tr>
<td><strong>DSPS LERND2 — High Tech Center Tutorial/Assistance Class</strong></td>
<td>Designed for students with identified disabilities who have at least three academic units at Mt. SAC. Using adaptive technology, alternate media and specialized support, offers techniques and strategies to maximize abilities in academic classes. Students are required to provide their own data disks.</td>
</tr>
<tr>
<td><strong>DSPS LERND3 — Adaptive Academic Preparation</strong></td>
<td>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.</td>
</tr>
</tbody>
</table>

**ENGLISH AS A SECOND LANGUAGE**

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<tbody>
<tr>
<td><strong>ESL LVL-1 — ESL Level 1</strong></td>
<td>Beginning to low English students build vocabulary, grammar and communication skills.</td>
</tr>
<tr>
<td><strong>ESL LVL-2 — ESL Level 2</strong></td>
<td>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.</td>
</tr>
<tr>
<td><strong>ESL LVL-3 — ESL Level 3</strong></td>
<td>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.</td>
</tr>
<tr>
<td><strong>ESL LVL-4 — ESL Level 4</strong></td>
<td>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.</td>
</tr>
<tr>
<td><strong>ESL LVL-5 — ESL Level 5</strong></td>
<td>Low advanced level students improve English communication and grammar understanding through practice of listening, speaking, reading and writing skills. Activities include team projects, presentations and exams, in preparation for academic/vocational success and encourage civic participation.</td>
</tr>
<tr>
<td><strong>ESL LVL-6 — ESL Level 6</strong></td>
<td>High advanced level students improve English communication skills and prepare to transition into academic, vocational, or general community classes. Activities include teamwork, projects, presentations and exams to ensure life-long learning, civic participation and overall success.</td>
</tr>
<tr>
<td><strong>ESL PLVL-1 — ESL Pre-Level 1</strong></td>
<td>Literacy-level English students build a base of vocabulary and grammar through practice of listening, speaking and reading writing skills.</td>
</tr>
<tr>
<td><strong>ESL SPK-A — ESL Speaking A</strong></td>
<td>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.</td>
</tr>
<tr>
<td><strong>ESL SPK-B — ESL Speaking B</strong></td>
<td>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.</td>
</tr>
<tr>
<td><strong>ESL SPK-C — ESL Speaking C</strong></td>
<td>Advanced level students expand listening and speaking strategies to facilitate academic preparation, workplace advancement, and civic participation. Focus is on fluency, grammatical accuracy and appropriate register. Activities include use of authentic material in group tasks and class presentations.</td>
</tr>
<tr>
<td><strong>ESL TOEFL — TOEFL Preparation</strong></td>
<td>Advanced ESL students improve grammar, speaking and writing in preparation for standardization tests such as TOEFL.</td>
</tr>
<tr>
<td><strong>ESL V-HLTH — English as a Second Language for Healthcare Professionals</strong></td>
<td>Advanced ESL students improve medical vocabulary and English skills for healthcare situations.</td>
</tr>
<tr>
<td><strong>ESL WRTE-A — ESL Writing A</strong></td>
<td>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.</td>
</tr>
<tr>
<td><strong>ESL WRTE-B — ESL Writing B</strong></td>
<td>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.</td>
</tr>
<tr>
<td><strong>ESL WRTE-C — ESL Writing C</strong></td>
<td>Advanced level students expand English reading and writing proficiency through a range of genres. American-style process writing is practiced in order to facilitate academic preparation and workplace advancement. Focus will be on interpretation of authentic material and development of editing strategies.</td>
</tr>
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</table>

**HEALTH & SAFETY**

<table>
<thead>
<tr>
<th>COURSE</th>
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<tbody>
<tr>
<td><strong>HLSF PHYS01 — Water Exercise — Phase I</strong></td>
<td>Water exercise program that provides an individual workout with an emphasis on strength development, cardiovascular fitness improvement and increased flexibility. Lap swimming lanes are available. Improved results will be achieved through active participation for students who repeat the course.</td>
</tr>
<tr>
<td><strong>HLSF PE-F10 — Physical Fitness and Conditioning — Weight Training</strong></td>
<td>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.</td>
</tr>
<tr>
<td><strong>HLSF PE-I48 — Physical Fitness and Conditioning — Wrestling</strong></td>
<td>Wrestling to develop overall fitness and conditioning. Appropriate for beginning and advanced practitioners. Improved results will be achieved through active participation.</td>
</tr>
<tr>
<td><strong>HLSF PE-S13 — Physical Fitness and Conditioning — Football</strong></td>
<td>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.</td>
</tr>
<tr>
<td><strong>VOC RADTEC — Intravenous Therapy for Radiologic Technology</strong></td>
<td>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.</td>
</tr>
</tbody>
</table>
OCCUPATIONAL – ADMINISTRATIVE JUSTICE

VOC ADJU01 — Administration of the Justice System
History and philosophy of the justice system, subsystems, roles, relationships and theories of crime causation and correction.

VOC ADJU02 — 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 ADJU03 — Concepts of Criminal Law
Provides an overview of California criminal law from the perspective of the law enforcement officer.

VOC ADJU04 — Legal Aspects of Evidence
Introduction to criminal evidence, including admissibility, witness competency, privileged communication, hearsay and collection and preservation of evidence.

VOC ADJU05 — 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 ADJU06 — Concepts of Enforcement Services
Responsibilities, techniques and methods of police patrol with emphasis on the basic knowledge required in handling common police occurrences.

VOC ADJU13 — Concepts of Traffic Services
A study of traffic management, collision reconstruction, collision factors including law violations and human factors, collision evidence, traffic enforcement techniques and specialization in traffic management. Emphasis is placed on service to the motor public.

VOC ADJU20 — 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 ADJU38 — Narcotics Investigation
Investigation techniques for drug enforcement. Drug effects, use of informants, amendment issues and handling of evidence.

VOC ADJU59 — Gangs in the Community/Corrections
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 ADJU68 — Administration of Justice Report Writing
Techniques for proper documentation of crime reports and related law enforcement records. Use of simulations and role-playing.

VOC ADJU74 — Vice Control
Code and case law dealing with vice; detection and suppression; apprehension and prosecution of violators; special consideration of laws dealing with gambling, prostitution, and sex crimes.

OCCUPATIONAL – AGRICULTURAL SCIENCE

VOC AGAG01 — 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 AGAN01 — 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 AGAN02 — Animal Nutrition
Composition of feeds and their utilization by domestic animals, including digestive physiology, animal assessment, feed appraisal and compiling of rations.

VOC AGAN51 — 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 AGAN94 — 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 AGLI12 — Exotic Animal Management
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 AGLI14 — 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 AGLI16 — 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 AGLI17 — Sheep Production
A study of the various types of sheep enterprises and the ways and means of entering them. Includes class, laboratory and project work concerning all phases of sheep management, sheep handling, feeding, shearing, breeding, lambing and marketing. Practical skills taught on the school farm and sheep farms in the area.

VOC AGLI18 — Horse Ranch Management
Skills and knowledge to work on or manage a modern equine ranch, including management of the breeding farm, farm layout, estrus cycles, breeding problems and stallion care.

VOC AGLI19 — Horse Hoof Care
Emphasizes proper horse hoof care; shoeing, trimming and disease recognition and control.

VOC AGLI20 — 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 AGLI30 — 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 AGLI34 — 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 AGLI96 — Animal Sanitation and Disease Control
Prevention and control of infectious diseases affecting domestic animals, including basic disease concepts, transmissions of infectious diseases, principles of sanitation and fundamentals of immunology.

VOC AGLI97 — 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 AGOR06 — Home Gardening
Includes lectures, demonstrations and hands-on experience in organic gardening, indoor plants, introduction to bonsai, fruit orchards, traditional gardening and information on pesticides. The study of design, propagation methods, pruning, fertilizing, and a general understanding of horticulture will be included.

VOC AGOR01 — Horticultural Science
The basic horticulture skills and techniques for use in gardening, nursery, and landscape applications. Emphasis on propagation, cultural practices, and the study of plant relationships, structure, growth and development.

VOC AGOR02 — Plant Propagation/Greenhouse Management
Plant propagation and production practices with emphasis on florists’ plants, woody ornamentals and fruits. Commercial techniques include seed propagation, cuttings, grafting and budding, layering, fern sporing and division. Stresses greenhouses and other environmental structures for plant propagation and production.
Community Education

VOC AGOR04 — Park Management
Management and operation of municipal park departments. Includes the development of budgets, purchasing, park policies, planning and scheduling.

VOC AGOR05 — 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 AGOR13 — 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 AGOR15 — Interior Landscaping
Design, Installation and maintenance practices used in interior landscaping. Includes identification, culture and care of plants suitable for interior use.

VOC AGOR24 — 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 AGOR25 — 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 AGOR26 — 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 AGOR27 — 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 AGOR29 — 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 AGOR30 — 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 AGOR32 — 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, pesticides, 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 AGOR39 — 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 AGOR50 — Soil 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 AGOR55 — 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 AGOR56 — 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 AGOR57 — 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 AGOR62 — 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 AGOR63 — 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 AGOR64 — 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 AGOR71 — Landscape Construction Fundamentals
Fundamentals of construction techniques and tools used in landscaping. Students will gain skills in construction projects that include surveying techniques, utilities (gas, water, electricity), woodworking and masonry.

VOC AGOR72 — Landscape Hardscape Applications
Landscape construction pertaining to landscape featured in the landscape. Estimation and installation of fences, walls, planters, patios, lighting, barbecues, gazebos, decks, ponds, spas, fountains and pools. Students will gain hands-on experience in the laboratory activities.
VOC AGOR73 — Landscaping Laws – Contracting and Estimating
Landscape laws, contracting and estimating as they pertain to landscape construction. Information covered will be helpful for Landscape Contractor’s (C-27 classification) licensing exam administered by the state of California. Students gain hands-on experience of contracting and running a business.

VOC AGOR75 — Urban Arboriculture
Care and management of ornamental trees. Includes pruning techniques, fruit tree care, bracing, cabling, and pest control. Safe practices in the use of equipment including the use of ropes, chippers, boom trucks, chain saws, and identification and evaluation of common trees. Prepares students for the tree worker and arborist certification exams.

VOC AGPE70 — Pet Shop Management
The pet industry, pet shop operations and the economic aspects of the retail/wholesale pet business. Includes organization and operation of pet shops, animal care practices, and sound business management practices.

VOC AGPE71 — Canine Management
Selection, feeding, housing, breeding and management of dogs, including commercial aspects of the dog as a domestic pet. Laboratory work will include practical experience in the handling, training and grooming of dogs.

VOC AGPE72 — Feline Management
Care and management of cats. Includes breed identification and characteristics, grooming, showing, nutrition, practical care, behavior, breeding and housing.

VOC AGPE73 — Tropical and Coldwater Fish Management
Care and keeping of marine and freshwater aquarium fishes, plants and invertebrates. Includes guidance on setting up aquariums, choosing compatible species, feeding, health care, breeding and raising fish.

VOC AGPE74 — Reptile Management
Care and keeping of reptiles and amphibians, including snakes, lizards, turtles, tortoises, newts, salamanders and frogs. Includes identification and characteristics of reptiles commonly kept as pets. Guidance regarding the housing, feeding, health maintenance, breeding and raising of reptiles will be offered.

VOC AGPE76 — Aviculture – Cage and Aviary Birds
Presents cage and aviary birds marketed in the wholesale and retail pet trade, including identification, nutrition, breeding, disease prevention and control, aviary construction and providing the proper environment. Includes information on psittacines, soft bills, finches, game birds, poultry and ornamental waterfowl.

VOC ARCH11 — Architectural Drawing
Basic graphic and drawing techniques, including architectural graphics, building construction fundamentals, and methods of drawings considered prerequisite to architectural design.

VOC ARCH16 — 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 ARCH18 — 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 ARCH26 — 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 ARCH28 — Architectural CAD 3-D Illustration and Animation
Intermediate to advanced architectural CAD in 3-D illustration, rendering and animation. Virtual “walk-through” and “fly-through” of interior/exterior/3-D models with photo-realistic materials and lighting will be produced. Students who repeat this course will improve skills through further instruction and practice.

VOC BSA07 — Principles of Financial Accounting
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 BSA11 — 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 BSA53 — 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 BSA68 — Business Mathematics
Reviews addition, subtraction, multiplication, division, decimals, percentages, fractions, sign numbers, equations and problem solving.

VOC BSA70 — Payroll and Tax Accounting
Examines all areas of on-the-job payroll accounting. Surveys the various tax procedures required by the employer and employee in filing the correct forms for Social Security, federal and state income taxes and their reconciliation. Laws related to Worker’s Compensation, State Disability Benefit Laws and Fair Employment Practices are discussed.

VOC BSA71 — 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 BSA72 — 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 BSA75 — 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 BSA76 — 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 BSM10 — 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 BSM12 — Continuous Quality Improvement Team Building
Advisory Prerequisite: VOC BSM 10
Provides comprehensive instruction in building and using Continuous Quality Improvement project teams including selection of team members and evaluation of team performance. Students completing the course will be qualified to participate as members of Continuous Quality Improvement teams, create and evaluate problem solutions, applying tools for improvement planning and team decision making, and build an effective improvement plan.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>VOC BSM25</td>
<td>Principles of E-Commerce</td>
<td>A hands-on course focusing on learning the principles of E-commerce through the use of the internet. Students study the economic importance of E-commerce domestically and internationally. Includes uses of the internet, consumer buying, retail and business purchases, internet marketing, digital advertising, E-commerce and business websites.</td>
</tr>
<tr>
<td>VOC BSM51</td>
<td>Principles of International Business</td>
<td>An overview of the rapidly changing international business environment, designed to provide a global perspective. Introduces global viewpoints across the full spectrum of business functions, including but not limited to: accounting, finance, human resources, management, operations, production, purchasing and strategic planning.</td>
</tr>
<tr>
<td>VOC BSM52</td>
<td>Principles of Exporting and Importing</td>
<td>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.</td>
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<tr>
<td>VOC BSM60</td>
<td>Human Relations in Business</td>
<td>Behavior, personality, self-management, self-development, and elementary business psychology as an aid to furthering the student’s business advancement and lifelong learning. Class discussions focus on the student’s understanding of intrapersonal and interpersonal effectiveness with emphasis on communications, motivation, leadership and other related areas.</td>
</tr>
<tr>
<td>VOC BSM61</td>
<td>Business Organization and Management</td>
<td>Functions of management, techniques of decision making and problem solving, and methods used by the manager to achieve organizational goals. Various theories of management, lines of authority, functions of departments, and the importance of policies, procedures, and controls are discussed.</td>
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<tr>
<td>VOC BSM62</td>
<td>Human Resource Management</td>
<td>Direction of people including guidance, control, supervisory problems, training, job analysis, interviewing, testing, rating and other functions involving human resources. Designed to improve the overall understanding of the relationship between the individual and the business organization.</td>
</tr>
<tr>
<td>VOC BSM66</td>
<td>Small Business Management</td>
<td>Practical problems encountered in organizing and operating a small business enterprise: initiating the business, financial and administrative control, legal and government relationships and other related considerations.</td>
</tr>
<tr>
<td>VOC BSM68</td>
<td>Business Vocabulary</td>
<td>Provides business majors with a forum to gain knowledge, develop techniques, problem solve and implement an actual business plan. Special emphasis will be placed on the particular project of the actual business used as the class project.</td>
</tr>
<tr>
<td>VOC BSM95</td>
<td>Business English</td>
<td>Skills and techniques of English, as applied to business situations. Emphasis on effective paragraphs and memos.</td>
</tr>
</tbody>
</table>
VOC CP02 — Intermediate Computer Keyboarding
Develops computer keyboarding speed and accuracy with a proficiency
standard upon completion of 35-55 words a minute with a
predetermined error limit. Using word processing software, extensive
instruction given for formatting of letters, memos, reports, tables and
other related business documents.

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 Web Page Software
Using industry leading Web page software to plan, develop, and
publish effective professional websites. 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 website.

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.

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 CP20 — Word for Office / Business Professionals
Extensive hands-on instruction using Microsoft Word and its language,
editing and formatting tools to create, revise and format various
business and report documents. Also create complex publication
documents using advanced formatting techniques and tools.

VOC CP28 — Office Management Skills
Training and skill building in filing systems and procedures,
proofreading, telephone techniques, faxing, emailing and electronic
calendaring of events, appointments and meetings.

VOC CP29 — Computer Keyboard Skills Building
Using microcomputers to increase speed and accuracy through intensive
drills. Students will have their keyboarding skill diagnosed and
appropriate drill work will be prescribed. Students who repeat this
course will improve skills through further instruction and practice.

VOC CP50 — Desktop Presentations using PowerPoint
Use PowerPoint to plan, design, and produce effective presentations.
Includes creating charts, diagrams, and storyboards; developing
appropriate text content; adding sound, animation, and movies.
Students who repeat this course will improve skills through further
instruction and practice.

VOC CP60 — Desktop Publishing with InDesign or Pagemaker
Using Pagemaker or InDesign desktop publishing software to integrate
text and graphics for designing, editing and producing high-quality
business publications.

VOC CP62 — Desktop Publishing with QuarkXpress
Using QuarkXpress desktop publishing software on a microcomputer
to integrate text and graphics for designing, editing and producing
high-quality business publications.

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
Provide 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 CP-BC1 — 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 CP-BC2 — 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 CP-BCC — Basic Computing Level 3
Prerequisite: VOC CP-BC2 Basic Computing Level 2
Designed to increase word processing skills through creative projects
which introduce computer graphics. Students will further their
understanding of proper computer care and maintenance.

VOC CP-CC — 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 CP-CL — Computer Laboratory
A lab study program designed to complement the lecture materials
presented in computer program instructional courses.

VOC CP-CL — Introduction to Internet Research
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.

COMMUNITY EDUCATION

VOC CNETS0 — PC Servicing
PC and peripheral servicing techniques, preventative maintenance,
hardware configurations, software configurations, software diagnostics,
and the use of test equipment.

VOC CNETS2 — 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 CNETS4 — 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 CNETS6 — 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.
COMMUNITY EDUCATION

VOC CNET60 — 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 CNET62 — Network+ Certification Preparation
Prepares the student and/or A+ certified technician for the Network+ Certification Examination. Individuals preparing for a job in the computer networking industry or who wish to become Network+ certified will find this course invaluable.

VOC CORS40 — Crime and Delinquency
Techniques of interviewing and counseling in the field of corrections. Emphasizes cultural and racial differences and interpersonal relationships of correctional staff and clients.

VOC CORS30 — Ethnic Relations in Corrections
A historical survey of minority roles, problems and relationships in America. Stresses cultural and racial differences and interpersonal relationships of correctional staff and clients.

VOC CORS50 — Introduction to Mechatronics
An introduction to the field of mechatronics, a combination of conventional electronic technology with mechanical and computer technology. Special emphasis is on robotics. Hands-on activities include the building of a robot.

VOC CORS45 — The Violent Offender
Violent crimes of felony assault, robbery, rape, the various types of homicide, and the characteristics of both the offender and the victim.

OCCUPATIONAL – ELECTRONICS

VOC EL10 — Introduction to Mechatronics
An introduction to the field of mechatronics, a combination of conventional electronic technology with mechanical and computer technology. Special emphasis is on robotics. Hands-on activities include the building of a robot.

VOC EL11 — Technical Applications in Microcomputers
Use of the personal computer (PC) in electronics for technically related applications. Includes word processing, spreadsheet, database, computer presentation methods, e-mail and job searches. Students who repeat this course will improve skills through further instruction and practice.

VOC EL12 — Computer Simulation and Troubleshooting
Use of the personal computer for simulation and troubleshooting of both analog and digital electronic circuits. Circuit analysis, value substitution, and fault diagnostics will be done with the emphasis on "Electronics Workbench/Multisim" software. Students who repeat this course will improve skills through further instruction and practice.

VOC EL50A — Electronics Theory
Corequisite: VOC EL50AL
DC circuit theory covering resistive circuits, basic components, Ohm’s Law, Kirchhoff’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 — Industrial Electronic Systems
Industrial electronic components and basic control circuits. Includes time delay controls, solid-state controls, relays, opto devices, DC motor control, transducers, SCR, and UJT devices.

VOC EL50AL — Industrial Electronic Systems Laboratory
Laboratory experiments in industrial circuits, covering concepts presented in ELEC 54A. Emphasizes basic industrial control circuits, test equipment, and proper testing procedures.

VOC EL50BL — Industrial Electronic Systems Laboratory
Laboratory experiments in industrial control circuits, covering concepts presented in VOC EL50B. Includes troubleshooting procedures and system application of industrial electronics. Emphasizes programmable logic controllers and use of “ladder diagram.”

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 EL51L — Electronic Devices Laboratory
Laboratory experiments in solid-state circuitry, covering concepts presented in ELEC 51. Emphasizes bread boarding skills, data collection and reporting, troubleshooting, and test equipment.

VOC EL53 — Communications Circuits Theory
Analog and digital communication circuits theory. Emphasizes analog and digital modulation principles in AM, FM, SSB, PLL, FDM, TDM, modems, fiber optics, and telecommunications circuits.

VOC EL53L — Communications Circuits Laboratory
Laboratory experiments in communication circuits covering concepts presented in ELEC 53. Emphasis is on proper use of test equipment, test procedures, breadboarding, and analysis in both analog and digital modulation circuits.

VOC EL54A — Industrial Circuits Theory
Industrial electronic components and basic control circuits. Includes time delay controls, solid-state controls, relays, opto devices, DC motor control, transducers, SCR, and UJT devices.

VOC EL54AL — Industrial Circuits Laboratory
Laboratory experiments in industrial circuits, covering concepts presented in ELEC 54A. Emphasizes basic industrial control circuits, test equipment, and proper testing procedures.

VOC EL54BL — Industrial Circuits Laboratory
Laboratory experiments in industrial circuits, covering concepts presented in VOC EL54B. Includes troubleshooting procedures and system application of industrial electronics. Emphasizes programmable logic controllers and use of “ladder diagram.”

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 EL55L — Microwave Communications Laboratory
Laboratory experiments in microwave communication theory covering concepts presented in ELEC 55. Emphasizes data collection and reporting, measurement techniques, and test equipment.

VOC EL56 — Digital Electronics Lecture
Combinational and sequential logic circuits emphasizing number systems, binary math, state machines, Boolean algebra, Karnaugh maps, flip-flops, counters, and registers. Stresses design and troubleshooting techniques.

VOC EL56L — Digital Electronics Laboratory
Laboratory experiments in digital electronic technology, covering concepts presented in ELEC 56. Emphasizes bread boarding skills, data collection and reporting, troubleshooting, and test equipment.
**VOC EL61 — Electronic Assembly and Fabrication Laboratory**

Corequisite: VOC EL61 advised.

Laboratory exercises and projects in electronic assembly and fabrication covering concepts presented in VOC EL61. Emphasizes production types, fabrication methods, design, SMT, PCB artwork, wiring, and connectors.

**VOC EL62 — Advanced Surface Mount Assembly and Rework**

Advanced course in assembly and repair (soldering) on surface mount assemblies. Preparers for the IPC surface mount assembly and rework certifications.

**VOC EL74 — Microprocessor Systems Lecture**

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 EL74L — Microprocessor Systems Interfacing Laboratory**

Laboratory experiments in microprocessor programming and interfacing utilizing concepts presented in the lecture portion of this class. Emphasis is on the programming and debugging of software programs and interfacing circuits.

**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 ELM65A — 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 ELM65B — Mathematics of Electronics – AC**

Mathematics of AC circuits analyzing passive circuits including resistance, reactance, impedance, resonance, and complex numbers (polar and rectangular).

**VOC TCH60 — Customer Relations for the Technician**

Customer relations (soft skills) for the technician, including benefits of knowing and using effective customer contact tools, proper customer interactions, 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, solid-state devices, digital and microprocessor devices and their application to cable installations. Preparers for the California State Contractors C-7 low voltage systems license.

**VOC EST52 — Fabrication Techniques for Cable Installation**

Fabrication techniques used in the installation of home theater, computer networks, home automation, and other low voltage system applications. Emphasis on hand and power tools, construction methods and materials as they apply to cable and wire installations.

**VOC EST54 — Cabling and Wiring Standards**

Cable and wire standards of video, voice and data wiring for home theater, computer networks, home automation, telecommunications, and other low voltage system installations. Emphasis on copper wire, coax, fiber optic, and structured cables. Preparers for the California State Contractors C-7 low voltage systems license.

**VOC EST55 — Home Theater, Home Integration & 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. Preparers 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). Preparers for the California State Contractors C-7 Low Voltage Systems license examination.

**OCCUPATIONAL – ELECTRONICS & COMPUTER TECHNOLOGY**

**VOC EDT11 — Technical Engineering Drawing 1**

Basic skills for a solid foundation in the Engineering Drawing or Computer-Aided Design fields. Involves application, basic sketch, theories and design processes used in engineering and industrial drawings. Completion of a portfolio is a requirement of this course.

**VOC 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.

**VOC EDT14 — Mechanical Design – Geometric Dimensioning and Tolerancing**

Use symbols for tolerance of form and tolerance of position and drawing requirements with respect to actual function and relationship of part features. Studies of related terminology, power transmission, bearing and mechanical devices, related exercises including design layout, details and assembly drawings. Completion of a portfolio is a requirement of this course.

**VOC EDT16 — Basic CAD and Computer Applications**

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 EDT18 — Engineering CAD Applications**

Intermediate CAD for engineering, explores the 2-D and 3-D environments, 3-D parametric solid modeling, file manipulation related to Windows platforms.

**VOC EDT24 — Engineering CAD 3-D Solids and Surfaces**

Advanced engineering CAD for developing detailed working drawings in 3-D environments, incorporating 3-D parametric solid modeling, bill of materials, and surface development. Students who repeat this course will improve proficiency and skill levels.

**VOC EDT26 — Civil Engineering Technology and CAD**

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.

**OCCUPATIONAL – FASHION**

**VOC FASH08 — Introduction to Fashion**

Examines scope of the fashion industry from concept to consumer: industry background and technology. Includes design, manufacturing, distribution, sales and promotion with emphasis on career opportunities and qualifications.
COMMUNITY EDUCATION

VOC FASH10 — Clothing Fundamentals
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.

VOC FASH12 — Advanced Clothing
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 FASH15 — 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 FASH20 — 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 figures in rendering garment flats using texture, fabric, and design detail. Students will explore a variety of mediums.

VOC FASH21 — Basic Patternmaking
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 FASH22 — 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 FASH23 — 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 FASH24 — Fashion Patternmaking by Computer
Applications of Computer Aided Design (CAD) patternmaking and grading for the fashion industry. Exploration of drawing techniques, pattern development, flat pattern manipulation and the sizing/grading of patterns.

VOC FASH25 — 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 FASH30 — 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-boards, and evaluate the aesthetic and commercial results.

VOC FASH31 — 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 FASH32 — 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 FASH62 — 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.

COMMUNITY EDUCATION

VOC GEOG10 — Introduction to Geographic Information Systems
An introduction to the fundamentals of a geographic information system (GIS) history of automated mapping, introduction to cartographic principles; overview of software, such as ArcView; hardware; application of GIS technology in environmental sciences, government, business, terminology, data, and spatial analysis.

VOC ANAT50 — Basic Anatomy and Physiology
Introduction to human anatomy and physiology by systems, with brief descriptions of biochemistry, cell biology and molecular biology. Upon completion, students will understand normal functions and be able to recognize pathologies.

VOC CPR01 — BLS Heartsaver Course — Adult
This three (3) hour course is designed to teach the life-saving skills of Cardiopulmonary Resuscitation, the first aid techniques for choking emergencies, and how to respond to general life-threatening emergency situations. Students will learn about the risk factors associated with heart attacks and strokes. Successful completion of the course will provide the student with an American Heart Association Heartsaver CPR Level A Completion Card, renewable in two years.

VOC HLTH01 — Certified Nursing Assistant
Prepares participant to work in a skilled nursing facility and pass California Long-Term Care CNA exam. Prerequisites:
- Current American Heart Association BLS for Health Care Providers card (must be valid for course duration)
- Completed Technology and Health Division Student Medical History and Physical exam form within the last 3 months
- Current Live scan fingerprint documentation.
- Valid identification (CA driver’s license or CA ID card) and Social Security card
Co-requisite: Enrollment in VOC HLTH 05

VOC HLTH04 — Acute Care Nursing Assistant
This course will enhance the existing skills of the CNA and provide the knowledge and job skills to work in various departments of acute care hospitals including med-surgical, obstetrics and pediatrics. Prerequisites:
- Documentation of completion of CNA Course and successful pass on CNA certification exam
- Current American Heart Association BLS for Health Care Providers card (must be valid for course duration)
- Completed Technology and Health Division Student Medical History and Physical exam form within the last 3 months
- Current Live scan fingerprint documentation.
- Valid identification (CA driver’s license or CA ID card) and Social Security card

VOC HLTH05 — Health Careers Resource Center
Provides health occupational students with instructional media and equipment to practice and improve nursing and other health occupation competencies.

VOC HLTH12 — Medical Terminology
Presents a study of the use and meaning of basic medical terminology. A programmed learning, word building system will be used to learn word parts that are used to construct or analyze new terms. Emphasis is placed on spelling, definition, usage and pronunciation. Abbreviations will be introduced as related terms are presented. Special emphasis will be placed on actual case diagnoses, treatments and medical interventions.

VOC HLTH13 — 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 HLTH14 — 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.
VOC HLTH15 — Externship in Health Care Interpreting
Corequisite: VOC HLTH20
Healthcare Interpreting Seminar Facilitating linguistic and cultural communication between client and health care providers.

VOC HLTH16 — Geriatric Resource Specialist
Prepares the participant to utilize available resources for older adults on a national and local basis. Identification of older adults' needs; development of action plans to access appropriate services.

VOC HLTH18 — 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 HLTH20 — Health Care Interpreter Seminar
Principles, issues, concepts, and skills related to the role of the Health Care Interpreter in facilitating linguistic and cultural communications through the externship field experience.

Hotel and Restaurant Management

VOC HRM51 — Introduction to Hospitality
Brief review of the historical development of the hospitality industry; social and economic influences on the current leisure industry structures. Career opportunities at various levels in hotels, restaurants, food service institutions and private clubs/resorts. Education and experience requirements, personal qualifications, job responsibilities, job procurement and future opportunities.

VOC HRM52 — Food Safety/Sanitation
Basic principles of sanitation and safety in the food service industry. Emphasis on the role of management in design, implementation and training to establish an effective Hazard Analysis Critical Control point (HACCP) system. Students will have the opportunity to earn the National Restaurant Association's ServSafe Certificate upon completion of this course.

VOC HRM53 — Dining Room Service Management
Skills and knowledge needed for all aspects of dining room service. Exploration of the five different service styles and their relationship to various environments. Table setting styles, buffet set-ups, wine and beverage service, and service as a sales tool are covered. Safety of both customer and staff are discussed.

VOC HRM54 — Commercial Food Preparation
Basic principles of preparing foods for commercial operations; the use and identification of commercial tools and equipment; extending recipes; choosing the proper food grade; evaluation of food products and equipment usage.

VOC HRM56 — Management of Hospitality Personnel and Operations
Management skills course for students pursuing a career in supervision within the restaurant/hospitality industry. Application of basic management concepts and techniques necessary to achieve objectives in the management of operations and human resources in restaurant and hospitality businesses including analysis of hospitality workplace; the manager's responsibilities in training, coaching and performance appraisal of employees; decision making, leadership and planning.

VOC HRM57 — Restaurant Cost Control
Methods for controlling resources within the hospitality operation to maximize profits without compromising products. Discusses controls in front of the house, back of the house, purchasing and receiving.

VOC HRM58 — Fast Food Service Management
Basic principles of managing a fast food operation. Comparison with conventional restaurants in pricing, labor needs and facilities. Developing and marketing a positive company image. Practical and legal aspects of franchising versus single ownership. Sanitation and cost controls.

VOC HRM60 — Purchasing for the Restaurant Industry
Basic principles of purchasing for the food service industry. Ordering, receiving, storage, characteristics of products and grade selection for different situations are emphasized. Choosing the best supplier, negotiating the best terms and writing product specifications are covered.

VOC HRM61 — Menu Planning
Menu development for all facets of the food service industry including retail and contract operations; emphasis on the economics of the menu with regard to limitations of the facility and staff, pricing and menu design relative to the economy and culture of the target area. Specialty menus such as ethnic, fast food, catering and various contract situations are included.

VOC HRM62 — Catering
Comprehensive exploration of the catering business with in-depth study of organizing and creating both on-premise and off-premise events. Marketing and working with clients to 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 — INTERIOR DESIGN

VOC ID100 — Fundamentals of Interior Design
Application of design principles and elements in planning of total interior environments that meet individual, functional, legal and environmental needs. Selection of all materials and products used in interior environments will be emphasized for the functional aesthetic quality. (Recommend concurrent enrollment in ID 105.)

VOC MFG11 — 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 MFG12 — Manufacturing Processes 2
The study of manufacturing equipment and manufacturing processes. Theory and practice in milling operations, tooling setup, metallurgy, heat treatment, precision grinding, and basic tool design.

VOC MFG15 — AutoCAD 2D
Development of two dimensional AutoCAD mechanical screen drawings, as related to Computer Integrated Manufacturing (CIM), and Computer Aided Machines (CAM). Completed drawings will be translated into DXF and/or IGES files and then transferred to various CAD/CAM systems.

VOC MFG17 — 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 MFG19 — 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.
COMMUNITY EDUCATION

VOC MFG25 — 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 MFG27 — 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 MFG38 — 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 MFG38B — 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 MFG38C — 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 MFG39 — 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 MFG39B — 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 MFG58 — Blueprint Reading for Manufacturing
Blueprint reading as a means of interpreting and visualizing drawings used in manufacturing. Includes the basic print format, title block, notes, materials, machining specifications, application of principles to CNC, welding, and sheet metal. Students who repeat this course will improve skills through further instruction and practice.

VOC MFG70 — 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 MFG85 — Manual CNC (Computerized Numerical Control) Operations
Theory and practice in manually developing CNC programs. Methods of transmitting data to CNC machines and physical set-up and operations of CNC equipment. Students who repeat this course will improve skills through further instruction and practice.

OCCUPATIONAL – NUTRITION

VOC NF81 — Cooking for your Heart and Health
Skills in healthful food preparation emphasizing foods low in fat, cholesterol and sodium, and high in fiber and nutrients.

VOC NF82 — Vegetarian Cuisine
Investigates nutritional issues related to vegetarian eating practices. Includes laboratory experience in preparation of vegetarian foods and meals.

OCCUPATIONAL – PHOTOGRAPHICS & PHOTOGRAPHY

VOC CP-DI — Digital Photography for the Beginner
Basic techniques to adjust and modify photos using Photoshop software. Includes digital color theory and photo quality standards; practice importing photo scans, creating layouts, layer animation, choosing fonts, special effects, export file formats, and output in a digital workflow.

VOC GRP14 — Digital Color Management
Advanced techniques of digital photo color management systems and workflow. System color architectures, monitors, printers, paperers, and other digital devices; spectrophotometer techniques; scripting; Photoshop actions, using “digital raw” meta data to organize photo storage; advanced special editing techniques for 16-bit raw color and grayscale images.

VOC GRP16 — Digital Image Design with Illustrator & Freehand
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.

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 in 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 PH004 — 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 PH010 — 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 PH011 — 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 PH012 — 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 PH015 — 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 PH016 — 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 PH017 — 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 PH018 — 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 PH020 — Color Photography
An introduction to current methods of producing color media, color negatives, positive transparencies, and outputting color prints.

VOC PH021 — 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 PH028 — Photography Portfolio Development
Development of photography portfolio either for job application or gallery exhibition purposes.

VOC PH030 — Commercial & Illustrative Photography
Application of photographic principles to commercial and illustrative photography. Practical experience in studio product photography, illustration, fashion and architectural photography. Areas of promotion and pricing will be covered. Both black and white and color media will be used.

VOC SL1 — Service Learning/Seminar for Health Occupations
Prepares students with related experiences in health occupations. Examines and profiles community health care needs. Explores and directly allows students to interface with various patient populations. Weekend and overnight labs to various areas within California 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 allows students to directly interface with community populations. Permits the student to explore different 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 STGLS1 — 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 STGLS2 — 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.

VOC THTR14 — 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 skills in actual theatre productions. Skills in the wide range of production stages by the department, students who repeat this course will increase their skills and proficiency.

VOC THTR15 — Play Rehearsal and Performance
Participation under faculty supervision in the planning, preparation and presentation of college-sponsored dramatic productions. Emphasis on acting with some technical theatre assignments. Students who repeat this course will improve skills through further instruction and practice.

VOC THTR16 — 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 THTR18 — Technical Theater Practicum
Participation in the technical preparation and operation of productions presented to the community. The student will be involved in one or more of the following areas: stage scenery construction, stage lighting set up, property construction, stage sound set up, costume construction and make-up. Crew assignments will be given to the student upon enrollment. The availability of assignments is contingent upon the requirements of the production. Students who repeat this course will improve skills through further instruction and practice.

VOC THTR19 — Theatrical Costuming
The study of costume history, principles of costume design, fibers and textiles, basic costume construction and design rendering techniques. Costume crew assignments for major productions will provide practical instruction in actual performance demands on costumes and their proper maintenance. Class is suitable for people interested in costuming for theater, dance, film, television and reenactments.
### COMMUNITY EDUCATION

#### COMMUNITY EDUCATION

- **VOC THTR60 — Children's Theatre**
  A comprehensive study of theatre for the child audience in theory and practice. Specifically seeks to evaluate play production techniques and literature with an eye to the needs of an audience of children. Includes history of children's theatre, analysis of plays for children and actual experience in acting, directing and producing children's plays for public presentation. Students who repeat this course will improve skills through further instruction and practice.

#### OCCUPATIONAL – WELDING

- **VOC WLD30 — Metal Sculpture**
  For students interested in art seeking the proper operation of welding processes related to the sculpting industry. Emphasizes the fundamentals of three-dimensional design. Includes demonstrations and exercises in welding as it relates to the art industry.

- **VOC WLD40 — Introduction to Welding**
  Fundamentals of welding processes related to the areas of fabrication, construction, machine tool, aerospace and the transportation industries.

- **VOC WLD50 — Oxyacetylene Welding**
  Oxyacetylene fusion welding, non-fusion welding and cutting. Develops understanding of and fundamental skills in modern welding practices.

- **VOC WLD51 — Basic Electric Arch Welding**
  Basic electric arc welding, weld symbols, standard electrode and alloy electrode selection, American Welding Society (AWS) procedure for certification.

- **VOC WLD53A — Welding Metallurgy**
  Designed for students seeking a career in welding and welding inspection. Covers structure of matter, chemical, physical and mechanical properties of metals, principles of alloying, solid state diffusion, plastic deformation and heat treatment.

- **VOC WLD60 — 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 WLD70A — 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 WLD70B — Advanced Arc Welding**
  A continuation of Beginning Arc Welding (WLD 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 WLD70C — 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 WLD80 — 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 WLD81 — Pipe and Tube Welding**
  Advanced course designed to enable students with "all positions" welding skills in SMAW to apply welding skills to the pipe welding industry. Welding processes will include SMAW, GRAW, GMW, FCAW on a variety of materials and configurations on sub-critical and critical piping and tubing.

- **VOC WLD90A — 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 WLD90B — 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 WLD91 — 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), PlasmaArc cutting and oxyfuel cutting and welding will be covered.

#### OCCUPATIONAL – WOODWORKING

- **VOC WOOD01 — Beginning Woodworking**
  Designed for students with little or no woodworking experience. Suitable for the human form. Students who repeat this course will further develop perceptual skills in clay modeling from the human figure.

- **VOC WOOD02 — Intermediate Woodworking**
  Prerequisite: VOC WOOD 01 or equivalent experience. Intermediate woodworking which includes designing, cost analysis, craftsmanship and occupational opportunities in the field. Elementary joinery, adhesives, simple production techniques, and wood finishes will be covered.

- **VOC WOOD03 — 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

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  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.

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#### OCCUPATIONAL – WOODWORKING

- **VOC WOOD01 — Beginning Woodworking**
  Designed for students with little or no wood- working experience. Includes use of hand tools and power woodworking equipment with an emphasis on safety.

- **VOC WOOD02 — Intermediate Woodworking**
  Prerequisite: VOC WOOD 01 or equivalent experience. Intermediate woodworking which includes designing, cost analysis, craftsmanship and occupational opportunities in the field. Elementary joinery, adhesives, simple production techniques, and wood finishes will be covered.

- **VOC WOOD03 — Cabinetmaking/Woodworking**
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- **VOC WOOD02 — Intermediate Woodworking**
  Prerequisite: VOC WOOD 01 or equivalent experience. Intermediate woodworking which includes designing, cost analysis, craftsmanship and occupational opportunities in the field. Elementary joinery, adhesives, simple production techniques, and wood finishes will be covered.

- **VOC WOOD03 — 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.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>OAD ART42</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 ART43</td>
<td>Printmaking – Silk Screen and Intaglio</td>
<td>Techniques of making fine-art original prints using the processes of stencil and intaglio hand printing. Screen prints, etchings and aquatints are emphasized as well as other related methods and new technologies. Students who repeat this course will improve skills through further instruction and practice.</td>
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<tr>
<td>OAD ART44</td>
<td>Printmaking – Relief &amp; Lithography</td>
<td>Development of the creative techniques of making fine art original prints using the processes of relief and planography hand printing. Woodcuts, linoleum cuts, monotypes, embossments, collographs, stone and aluminum plate lithography are explored. Students who repeat this course will improve skills through further instruction and practice.</td>
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<tr>
<td>OAD ART45</td>
<td>Printmaking – Silk Screening</td>
<td>An intensive study in the use of silk-screening as an art form. Tusche-glue, direct block cuts, paper and lacquer stencils and photographic method will be emphasized. Students who repeat this course will improve skills by further instruction and practice.</td>
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<tr>
<td>OAD ART46</td>
<td>Sculpture – Special Effects Makeup</td>
<td>Advisory Prerequisite: OAD ART 41A and/or OAD ART42 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 EDSE02</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 EDSE03</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 material. Students will learn skills to make crafts while sharing individual artistic expertise with peers.</td>
</tr>
<tr>
<td>OAD EDSE04</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 EDSE05</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 FINA01</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, or may purchase supplies from instructor as appropriate.</td>
</tr>
<tr>
<td>OAD FINA03</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, or may purchase supplies from instructor as appropriate.</td>
</tr>
<tr>
<td>OAD FINA04</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, or may purchase supplies from instructor as appropriate.</td>
</tr>
<tr>
<td>OAD FINA05</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 utilized.</td>
</tr>
<tr>
<td>OAD FINA32</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, or may purchase supplies from instructor as appropriate.</td>
</tr>
<tr>
<td>OAD FOKA04</td>
<td>Quitting</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, or may purchase supplies from instructor as appropriate.</td>
</tr>
<tr>
<td>OAD HLTH02</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 MOEX01</td>
<td>Mobility through Exercise – Physical Conditioning</td>
<td>For older adults who are interested in improving their physical condition. Involves all major muscles promoting strength and toning, improving range of motion and flexibility, and increasing endurance and coordination. Students are encouraged to participate at their own level. Appropriate music is utilized to enhance student motivation and class participation.</td>
</tr>
<tr>
<td>OAD MOEX02</td>
<td>Mobility through Exercise – Slow Stretch / Thai Chi Movement</td>
<td>Designed to increase strength and agility while improving peace of mind and reducing stress. Involves low impact movements that flow at a smooth, even tempo, making for improved balance as body weight is shifted. The movements will result in high levels of body control and increased powers of motion concentration. Several different moves of Tai Chi will be experienced.</td>
</tr>
<tr>
<td>OAD MOEX04</td>
<td>Mobility through Exercise – Yoga</td>
<td>Yoga is an ancient system of gentle stretching exercises and breathing techniques that enhance physical well-being. Focuses on Yoga methods that improve stamina, lung capacity, flexibility, muscle tone, circulation, cardiovascular performance and respiration.</td>
</tr>
<tr>
<td>OAD MOEX06</td>
<td>Mobility through Exercise – Water Exercise</td>
<td>This low impact water exercise program involves aerobic conditioning, strength training, and stretching in a water environment which minimizes impact on joints and the body. Swimming skills are not required for participants. This is not an individual swim class.</td>
</tr>
<tr>
<td>OAD MOEX07</td>
<td>Mobility through Exercise – Physical Fitness using Music to Enhance Skill Development</td>
<td>Enables students to increase balance, coordination, strength, flexibility and memory function through a progressive fitness program using music to enhance skill development.</td>
</tr>
<tr>
<td>OAD MOEX09</td>
<td>Mobility through Exercise – Strength Training using Resistance Bands</td>
<td>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.</td>
</tr>
<tr>
<td>OAD MOEX10</td>
<td>Beginning Self-Defense for Older Adults</td>
<td>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.</td>
</tr>
<tr>
<td>OAD MOEX11</td>
<td>Fall Prevention – Balance and Mobility</td>
<td>Addresses, particularly for older adults, the risks and fears associated with falling. Includes setting realistic goals, minimizing environmental risks and balance exercises.</td>
</tr>
</tbody>
</table>
## Community Education

**OAD MUS-CE — 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 MUS01 — 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 MUS19 — Elementary Organ**  
Group and individual instruction in registration, pedal technique, and interpretation of standard organ literature will be given in this course.

**OAD MUS25A — 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 MUS25B — Jazz Improvisation**  
Styles and techniques of improvisation. Each student must furnish his own instrument and be able to perform individually with the class.

**OAD MUS30 — Collegiate Chorale**  
A non-auditioned mixed choir 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 MUS32 — 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 MUS36 — 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 MUS38 — 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 MUS39 — 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 MUS47 — Jazz Band**  
Lectures, demonstrations, recordings, rehearsals, and performance will cover all types of popular music and jazz. Preference will be given to performers playing more than one instrument.

**VOC ESD02 — Production of Boutique Craft for Retail Sales**  
Prepares the student to create individual designs for mass production and/or one-of-a-kind crafts. Marketing, pricing, cost analysis and proper care of equipment included. Students will receive a supply list at the first class meeting.

**VOC ESD03 — Lettering Styles and Advertising Calligraphy**  
Presents styles of calligraphy as they are used in the arts, media, and advertising fields. Includes proper placement and proper size of lettering styles. Students will receive a supply list at the first class meeting.

**VOC ESD05 — Ceramics — Intermediate Production**  
Includes the techniques used to create finished ceramic pieces; including the art of chalking on ceramics in the bisque form and wood surfaces by using oil based stains, metallic stains, colored creams, rubs and metallic and bronze finishes. Finalizing some pieces with electrical parts and mounting on wood bases will be considered. Discusses proper equipment usage and maintenance. Marketing and cost analysis will be covered. Students will receive a supply list at the first class meeting.

**VOC ESD06 — Craft Painting for Business Opportunities**  
Painting on all types of surfaces including fabric, glass, wood, tin, plaster and plastic. Creativity and individual expression will be encouraged. Special painting techniques on each type of surface will be demonstrated and discussed. Includes product design, marketing and proper use of equipment and maintenance. Marketing and cost analysis will also be covered. Students will receive a supply list at the first class meeting.

**VOC ESD07 — Handcrafted Needlework for Retail Sales and Boutiques**  
Presents basic needlework techniques in knitting, crocheting, needlepoint, crewel embroidery, and plastic canvas for mass production as well as one-of-a-kind creations. Students solve fitting problems and make professional-looking garments. Includes proper yarn selection, pattern selection, proper maintenance of equipment and organization of work. Students will receive a supply list at the first class meeting.

**VOC ESD08 — Jewelry Production and Design for Retail Sales**  
Wire-worked jewelry design and production for marketing. Techniques such as wire wrapping, coiling, hammering, etc., which may incorporate beads, cabochon stones and free-form gemstone slabs will be covered. Discussion of proper equipment and maintenance, proper display for sales purposes, pricing and inventory control will be taught. Students will receive a supply list at the first class meeting.

**VOC ESD09 — Sewing and Design**  
Presents basic sewing techniques for mass production as well as one-of-a-kind creations. Learn to solve fitting problems and make professional-looking garments. Tailoring, pattern making, cutting and style design will be taught. Students are responsible for their own supplies and equipment. Proper maintenance of equipment and organization of work will be covered. Students will receive a supply list at the first class meeting.

**VOC ESD10 — Beginning Decorative Art Production for Retail Sales**  
Introduction to acrylic paints and associated mediums including painting on a variety of surfaces. The use of tole decorative art brush strokes will be incorporated into a step-by-step method on specific projects. Marketing and pricing of finished products will be presented.

**VOC ESD11 — Intermediate Decorative Art Production for Retail Sales**  
Use of acrylic paints and associated mediums including painting on a variety of surfaces. Patterns are provided for student’s use. More advanced tole decorative art brush stroke techniques will be incorporated into a step-by-step method on specific projects. Includes marketing and pricing of products. Students will receive a supply list at the first class meeting.

**VOC ESD15 — Jewelry/Lapidary Production Design**  
Jewelry making and stone cutting/polishing, lapidary work. Includes appropriate maintenance of equipment and workshop safety. Includes outings to jewelry suppliers, shows and rock hunting trips.

## PARENT EDUCATION

**PAED CHLD01 — 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.
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, or off-campus, by any person attending, regardless of age, is forbidden by State law.

The Federal government has mandated that as of October 1, 1990, there will be no drug usage by students, staff, or faculty on college campuses anywhere in the United States. Please see the latest Schedule of Classes for the College's Alcohol and Other Drugs Policy.

Animals on Campus
Board Policy does not allow for any animals on campus except as provided for by the California Penal Code, Section 365.5 (specially trained guide, signal, or service dogs). Leaving a pet in a parked vehicle, no matter what provisions are made for its safety, may constitute unnecessary suffering or cruelty which is a violation of California Penal Code 597.

Campus Disturbances
In accordance with California Penal Code (P.C. 626.6), the willful disturbance of classes, College activities, or procedures is a misdemeanor.

Campus Hours
The College offers instruction between the hours of 6:30 a.m. and 10:00 p.m., Monday through Sunday. Office hours vary depending on the services provided. Refer to the latest Schedule of Classes or call for specific office hours.

Children on Campus
While on the campus of Mt. San Antonio College, children under 12 years of age who are not approved for enrollment must be directly supervised at all times by a responsible adult. Such children shall not be left unattended in College buildings, outdoor areas, or in private automobiles.

Classroom Visitors
No person may be allowed to attend a regularly scheduled class unless officially registered for that class. Permission to visit a class must be secured from the professor. A visitor shall not attend class on a regular basis. Examples of visitors include: guest speakers, student friends, potential students, or minor children of officially registered students. Unauthorized visitors may be removed from the classroom by request of the Division Dean or designee, or other manager of the Instruction or Student Services Team.

Dress Regulation
Students are expected to dress in accordance with commonly accepted standards of appropriateness. It is mandatory that shoes be worn as general campus attire.

Driving and Parking
Users of Mt. San Antonio College campus roads and parking areas must observe and obey all traffic laws of the State of California and the College traffic and parking regulations adopted pursuant to Section 21113 of the California Vehicle Code and the Mt. San Antonio College Board of Trustees.

All four-wheeled vehicles parked in designated student lots MUST bear a valid parking permit for the semester enrolled. The Student Parking Permit is valid in designated student lots except in the spaces controlled by parking meters or reserved signage. Free 30-minute parking is available north of the Bookstore, west of the Administration Building, and south of the Performing Arts Center. Permit parking regulations are strictly ENFORCED during the Fall, and Spring semesters and summer and winter sessions from 7:00 a.m. to 10:00 p.m. Monday through Thursday, and Friday 7:00 a.m. to 4:00 p.m.

Eye Protection
Pursuant to the Education Code, the following regulation regarding eye protective devices shall be observed: Students, teachers, and visitors shall wear approved eye protective devices in all classes, shops, and laboratories when they are engaging in or observing the use of hazardous materials likely to cause injury to the eyes. Such eye protective devices shall meet the requirements of the American Standards Association Safety Code.

Academic Honesty
All members of the academic community have a responsibility to ensure that scholastic honesty is maintained. Faculty has the responsibility of planning and supervising all academic work in order to encourage honest and individual effort, and of taking appropriate action if instances of academic dishonesty are discovered.

Honesty is primarily the responsibility of each student. The College considers cheating to be a voluntary act for which there may be reason, but for which there is no acceptable excuse. It is important to understand that collaborative learning is considered cheating unless specifically allowed for by the professor.

Cheating and Plagiarism

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;
- Forgery or altering registration or grade documents.

The professor who determines that a student has cheated may give the student a failing grade for the assignment or for the course, or may drop the student from the course. Since the student has failed to abide by the standards of academic honesty, the professor has a right to give an “F” for the assignment or the course even though the student may have successfully and, presumably, honestly passed the remaining portion of the assignment or course. If the professor issues a failing grade for the course or drops the student, the actions shall be reported to the Dean of Student Services, and Director of Student Life. An instructor may also recommend that appropriate action be taken under provisions of the Administrative Regulations and Procedures on Student Discipline.

Plagiarism
“Plagiarism is a direct violation of intellectual and academic honesty. Although it exists in many forms, all plagiarism refers to the same act: representing somebody else’s words or ideas as one’s own. The most extreme forms of plagiarism are the use of material authored by another person or obtained from a commercial source, or the use of passages copied word for word without acknowledgment. Paraphrasing an author’s ideas or quoting even limited portions of his or her text without proper citation is also an act of plagiarism. Even putting someone else’s ideas into one’s own words without acknowledgment
may be plagiarism. In none of its forms can plagiarism be tolerated in an academic community. It may constitute grounds for a failing grade, probation, suspension, or expulsion."

“One distinctive mark of an educated person is the ability to use language correctly and effectively to express ideas. Faculty assign written work for the purpose of helping students achieve that mark. Each instructor will outline specific criteria, but all expect students to present work that represents the student’s understanding of the subject in the student’s own words. It is seldom expected that student papers will be based entirely or even primarily on original ideas or original research.”

“Therefore, to incorporate the concepts of others may be appropriate with proper acknowledgment of sources, and to quote others directly by means of quotation marks and acknowledgments, is proper. However, if a paper consists entirely of quotations and citations, the paper should be rewritten to show the student’s own understanding and expressive ability. The purpose of the written assignment (i.e., development of communication and analytic skills) should be kept in mind as each paper is prepared. It should not be evaded through plagiarism.”*

*Adopted, with permission of California State University, Los Angeles, from their policy printed in the 1987-88 General Catalog.

Non-Discrimination Policy

Mt. San Antonio College provides opportunities for the pursuit of excellence for all students and staff through its educational programs and services. The purpose of all programs, services, activities, conferences and college-endorsed competitions is to enrich the quality of human life. The College will provide open access to a college education and all support services without regard to sex, race, color, religious creed, national origin, ancestry, age over 40, marital status, physical or mental disability (including HIV & AIDS), sexual orientation, or Vietnam Era Veteran Status. The lack of English language skills will not be a barrier to admission. Policies and grievance procedures for unlawful discrimination and complaint procedures for sexual harassment for students and employees may be obtained by contacting the following individuals:

- **Trinda Hoxie, Director**
  Human Resources/Affirmative Action Officer
  Human Resources Office
  Building 4, Room 230, Ext. 4225

- **Audrey Yamagata-Noji, Vice President**
  Student Services
  Student Services Center, Ext. 4505

- **Carolyn Keys, Dean of Student Services**
  Building 9C, Room 1A, Ext. 4525

**Sexual Harassment Policy**

It is the policy of the Board of Trustees of Mt. San Antonio College to provide an educational, employment, and business environment free of unwelcome sexual advances, requests for sexual favors, and other verbal or physical conduct or communications constituting sexual harassment, as defined and otherwise prohibited by state and federal statutes.

Sexual Harassment is not only unlawful, but it shall be a violation of this policy for any employee, student, agent of the Board, or one who is authorized to transact business or perform other acts or services on behalf of the College to engage in sexual harassment. Any person who knowingly violates this policy will be subject to appropriate and immediate disciplinary action.

**Standards of Conduct**

**Board Policy, Section 5500**
Adopted 6/23/04

**Copies of the Standard of Conduct Policy can be obtained in Building 9C.**

The College President/CEO shall establish procedures for the imposition of discipline on students in accordance with the requirements for due process of the federal and State law and regulations.

The procedures shall clearly define the conduct that is subject to discipline, and shall identify potential disciplinary actions, including but not limited to the removal, suspension, or expulsion of a student.

The Board shall consider any recommendation from the College President/CEO for expulsion. The Board shall consider an expulsion recommendation in closed session unless the student requests that the matter be considered in a public meeting. Final action by the Board on the expulsion shall be taken at a public meeting.

The procedures shall be made widely available to students through the College catalog and other means.

The following conduct shall constitute good cause for discipline, including but not limited to the removal, suspension or expulsion of a student:

1. Causing, attempting to cause, or threatening to cause physical injury to another person.

2. Possession, sale or otherwise furnishing any firearm, knife, explosive or other dangerous object, including but not limited to any facsimile firearm, knife or explosive, unless, in the case of possession of any object of this type, the student has obtained written permission to possess the item from a College employee, which is concurred with by the College President/CEO.

3. Unlawful possession, use, sale, offer to sell, or furnishing, or being under the influence of, any controlled substance listed in Chapter 2 (commencing with Section 11053) of Division 10 of the California Health and Safety Code, an alcoholic beverage, or an intoxicant of any kind; or unlawful possession of, or offering, arranging or negotiating the sale of any drug paraphernalia, as defined in California Health and Safety Code Section 11014.5.

4. Committing or attempting to commit robbery or extortion.

5. Causing or attempting to cause damage to College property or to private property on campus.

6. Stealing or attempting to steal College property or private property on campus, or knowingly receiving stolen College property or private property on campus.

7. Willful or persistent smoking in any area where smoking has been prohibited by law or by regulation of the College.

8. Committing sexual harassment as defined by law or by College policies and procedures.

9. Engaging in harassing or discriminatory behavior based on national origin, religion, age (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. Wilful 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. Dishonesty, forgery, alteration or misuse of College documents or records or identification; or knowingly furnishing false information to College personnel.

13. Sexual Harassment Policy

14. Unauthorized entry upon or use of College facilities.

15. Lewd, indecent or obscene conduct on College-owned or controlled property, or at College-sponsored or supervised functions.

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 two categories: Academic and Non-Academic. 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 within 60 business days of the alleged violation, or from the time that the grade leading to the complaint is posted. 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 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 in an effort to resolve the problem. In the event that the problem cannot be resolved within 10 business 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. An appeal is possible if the student or faculty/staff member chooses to appeal the decision of the Committee. However, the decision made by the president or designee is final.

Smoking on Campus
Student, employee, and visitor health is a primary concern of Mt. San Antonio College. Because of the clear evidence of the harmful nature of smoke inhalation and because of the general concern over air contamination, Mt. San Antonio College in accordance with California State law, bans smoking within all campus buildings and in any outdoor area within twenty feet of any exterior exit or entrance to such a building. This includes all College-owned and College occupied buildings. Further, smoking is banned in the swimming pool area, Hilmer Lodge Stadium, and in all college vehicles.

Policy for Providing Academic Adjustments for Students with Disabilities
Under Federal and State laws, the College is required to make modifications to academic requirements and practices as necessary in order to ensure that they do not discriminate against a qualified student with a disability. The College is also required to have a policy and procedure for responding to students with verified disabilities who request academic adjustments. Students with disabilities have the right to receive reasonable academic adjustments in order to create an educational environment where they have equal access to instruction without fundamentally altering any course, educational program or degree. Copies of the Policy and Procedures for Providing Academic Adjustments for Students With Disabilities are available in Disabled Student Programs & Services, ext. 4290.

NOTICES

Equal Opportunity Statement
The Board of Trustees of Mt. San Antonio College has a commitment to establishing and maintaining a policy of equal educational and employment opportunities and prohibiting discrimination based on sex, race, color, religious creed, national origin, ancestry, age over 40, marital status, physical or mental disability (including HIV & AIDS), sexual orientation, or Vietnam Era Veteran Status. This commitment applies to educational programs, activities, service, and employment practices.

Notice of Students' Rights
Students at Mt. San Antonio College are notified annually of their rights under the act within this section of the Catalog. More detailed information on student rights is available from the Dean, Enrollment Management, including: 1) type of information and material contained within the student's educational record; 2) the official responsible for the maintenance of each type of record; 3) the procedure for student review and inspection of the educational record; 4) the procedure for challenging the contents of the educational record; 5) the charges to the student for reproducing copies of the record if requested; 6) the categories of information which the College has designated as Directory Information and to whom this information will be released unless the student objects; and 7) the rights of a student to file a complaint with the United States Department of Education concerning alleged failure of the College to comply with the provisions of the Act.

Federal Review Board
Students may file a complaint with the United States Department of Education, Room 5660, Independence Avenue, S.S., Washington, D.C. 20201, regarding alleged institutional violations of the Act.

Open Enrollment
All classes are open to all students who meet the course prerequisites and enrollment requirements, unless specifically exempted by statute. The College provides open access to all program offerings, opportunities, and support services without regard to sex, race, color, religious creed, national origin, ancestry, age over 40, marital status, physical or mental disability (including HIV and AIDS), sexual orientation, or Vietnam Era Veteran Status.

Public Safety
In compliance with the Clery Act, the College publishes an annual security report which contains information regarding campus crime statistics. This information may also be found on the website at www.mtsac.edu by clicking on Public Safety. Copies of the annual report can be obtained from the Public Safety Department, Building 4, Room 105. A Public Safety crime log is published bi-monthly in the student newspaper and brochures on Emergency Procedures are posted throughout the campus.

During the 2003-2005 calendar years, criminal offenses occurring on campus were reported to campus security authorities and local police agencies. Please see the Public Safety Department Statistical Crime Report listed in the box on the next page.

Emergency Procedures
Students and staff should report serious crimes and emergencies, i.e., fire/medical, occurring on campus to the Public Safety Department or call 911. When using an on-campus extension, call 9-911. Incidents may be reported to Public Safety by calling (909) 594-5611, ext. 4555, 24 hours a day. During normal business hours, Public Safety may be contacted at Building 4, Room 105, or by calling ext. 4230. The Public Safety Department is located at the southeast portion of the campus of the Police Station.
Bonita Drive in Building 48. Public telephone locations on campus have at least one phone that is equipped with a red emergency button that is a direct line to the Mt. SAC Public Safety Office during and after business hours. In the event of an emergency, students and staff are requested to make a prompt and accurate report to the Public Safety Department.

**Enforcement**

The Mt. San Antonio College Public Safety Department has the authority to enforce the Student Discipline Code of Conduct under the Education and Penal Codes of the State of California; and is the liaison with local police and sheriffs departments in cases of criminal actions.

Mt. San Antonio College District incident reports are not official police reports. If an official police report is required, the Los Angeles County Sheriffs Department in Walnut is the appropriate agency to contact.

**Crime Prevention**

The Public Safety Department’s primary responsibility is the safety and security of all members of the College community. Every effort is made to inform students and staff of criminal activity or any other concern that may be an immediate threat to the safety and security of those on campus. Information and workshops on crime prevention are made available to College students and staff. It is the responsibility of every member of the campus community to act in ways that promote the safety of self, others, and the protection of District property.

**Campus Emergency Phone System**

Mt. San Antonio College has installed a campus-wide emergency phone system. This system is divided into two primary segments. The inner campus system consists of emergency phones that are placed on the outside of selected campus buildings and are identified by the familiar blue light affixed to the top of the phone housing.

The second segment of emergency phones consists of stand-alone emergency phone towers, located in open campus spaces, primarily in campus parking lots. These phone towers are identified by a blue light affixed to the top of the tower.

Use of any of these emergency phones will connect the user to Campus Security during normal business hours, located in Building 4. During hours when the campus is closed, the Emergency phones will connect the user directly to a cell phone carried by Campus Security Officers who are on duty 24 hours a day, 7 days a week.

**Student Rights and Privacy Act**

Following is a summary of the Mt. San Antonio College policy related to the Family Educational Rights and Privacy Act of 1974, O.L. 93-380, and Chapter 1297, Statutes of 1976, State of California:

**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 who are in the sole possession of such personnel and are not accessible or revealed to any other person except a substitute.
4. Records of employees of Mt. San Antonio College, made and maintained in the normal course of business which relate exclusively to such person in that person’s capacity as an employee, are not available for use for any other purpose.
5. Records of students made and maintained by the Student Health Services, the College nurse, the College physician, and the College therapist, which are used in the treatment of students and are not available to anyone other than persons providing such treatment. However, such a record may be personally reviewed by a physician or other appropriate professional of the student’s choice.

**Release of Educational Records Information**

1. Any release of a student’s educational records, with the exception listed below, must be made with the student’s written consent.
2. The College may release copies of or otherwise divulge material in the student’s educational records only to the official agencies, groups, officials, or individuals specifically mentioned below:
   a. College staff members; provided that such employees have a legitimate educational interest to inspect such a record.
   b. Representatives of the Comptroller General of the United States, the Secretary of Education, and administrative head of an educational agency, state education officials, and the United States Office of Civil Rights, where such information is necessary to audit a program.
   c. Accrediting organizations in order to carry out their accrediting functions.
   d. Organizations conducting studies on behalf of the institution.
   e. Officials of other schools or school systems in which the student seeks or intends to enroll subject to the rights of students.

| PUBLIC SAFETY DEPARTMENT STATISTICAL CRIME REPORT |
|---------------------------------|----------|----------|----------|
| Violation                       | 2004     | 2005     | 2006     |
| Murder                         | 0        | 0        | 0        |
| Rape                           | 1        | 0        | 0        |
| Robbery                        | 1        | 0        | 1        |
| Assault                        | 15       | 5        | 17       |
| Weapons Violation              | 1        | 3        | 3        |
| Hate Crimes                    | 0        | 0        | 0        |
| Arson                          | 0        | 0        | 0        |
| Burglary                       | 11       | 11       | 11       |
| Burglary from Vehicle          | 19       | 16       | 28       |
| Theft                          | 54       | 44       | 59       |
| Theft from Vehicle             | 8        | 14       | 9        |
| Stolen Vehicle (GTA)           | 21       | 18       | 26       |
| Vandalism                      | 18       | 23       | 16       |
| Liquor Law Violations          | 0        | 0        | 1        |
| Illegal Drugs                  | 1        | 1        | 3        |
| Yearly Totals                  | 150      | 135      | 174      |

- a. Agencies or organizations in connection with a student’s application for financial aid.
- b. 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.
- c. 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.
- d. 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.
- e. “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).

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.

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 (G.E. 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.
3. continuous enrollment is defined as attendance during every regular semester (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 regular semester 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 Board of Appeals because of extenuating circumstances.

Student Right-to-Know Rates

Completion Rate: 26.1%
Transfer Rate: 25.9%

From 1996 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 1996, 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, 26.1 percent attained a certificate or degree or became ‘transfer-prepared’ during a three-year period, from Fall 1996 to Spring 1999. Students who are ‘transfer-prepared’ have completed 56 transferable units with a GPA of 2.0 or better.

Based on the cohort defined above, 25.9 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 1997 to Spring 1999.
The Faculty

Section 13
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<tr>
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Earth Sciences, Astronomy  
B.A., Smith College, Northampton  
M.S., University of Massachusetts, Amherst

Bro, Glenda (1991)  
American Language  
B.A., Dana College  
M.S., University of Nebraska  
TESOL Certificate, California State University, Fullerton

Brook, Ronald (1989)  
Aeronautical Engineering  
M.S. Cal Poly Pomona  
B.A., M.A., California State University, Fullerton

Brown, Ronald (2006)  
Art, Animation & Broadcasting  
B.F.A., Art Center College of Design

Buff, Haskell (2007)  
Physical Education  
B.S., Southern Utah University  
M.Ed., University of Nevada, Las Vegas

Burley, Virginia (1986)  
Interim Vice President, Instruction  
B.A., California State University, Northridge  
M.A., Ph.D., Claremont Graduate University

Burres, Fatemeh (1992)  
Art, Animation & Broadcasting  
B.A., Tehran University, Iran  
B.A., M.F.A., California State University, Fullerton

Burnett, Cynthia D. (1997)  
Counseling  
B.S., Northern Illinois University  
M.A., International Christian Graduate University  
M.S., California State University, Long Beach

Burns, Donna (2002)  
Director, ESL & Intercultural Programs  
B.S., M.A., Azusa Pacific University

Butler, Michael C. (1988)  
Mathematics, Computer Science  
B.A., M.S., California State University, Los Angeles

C

Calkins, Katherine (1974)  
Music  
A.A., Fullerton College  
B.M., M.A., California State University, Fullerton

Calzada, Silver (1999)  
Counseling  
B.A., A.S., M.A., Fullerton College  
M.A.T., Harvard University

Cannon, Holly (1988)  
English, Literature & Journalism  
B.A., M.A., California State University, Northridge  
M.A., University of Southern California

Cannon, Kathleen (2005)  
History, Art History, Geography, Political Science  
B.A., M.A., M.F.A., Ph.D., University of California, Los Angeles

Caputo, Mario V. (1993)  
Earth Sciences, Astronomy  
B.S., San Diego State University  
M.S., Northern Arizona University  
Ph.D., University of Cincinnati

Castellano, Timothy (2006)  
Earth Sciences, Astronomy  
B.A., M.S., San Jose State University  
Ph.D., University of California, Santa Cruz

Castillejos, Manuel (1989)  
Foreign Languages  
B.A., California State University, San Diego  
M.A., California State University, Fullerton

Cavion, Deborah (1994)  
Physical Education  
B.S., California State Polytechnic University, Pomona  
M.A., Azusa Pacific University

Cevallos-Castaneda, Susana (2005)  
Learning Assistance  
B.A., M.S., California State University, Fullerton

Chabot, Mary A. (1985)  
Mathematics, Computer Science  
B.A., Fordham University  
M.S., University of Notre Dame

Chamberlain, Alison (2006)  
Biological Sciences  
B.S., California State University, Bakersfield  
M.S., California State Polytechnic, San Luis Obispo

Chang, Chih-Ping (Andrew) (1997)  
Foreign Languages  
B.Ed., National Changhua University of Education  
M.A., National Taiwan Normal University  
Ph.D., University of Southern California

Photographing  
B.A., California State University, Long Beach  
M.A., California State University, Fullerton  
Ed.D., University of La Verne

Chavez, Raul S. (2000)  
History, Art History, Geography, Political Science  
B.S., California State Polytechnic University, Pomona  
M.A., California State University, Los Angeles  
Ph.D., University of California, Riverside

Chemistry  
B.S., University of California, Irvine  
M.S., Ph.D., University of California, Los Angeles

Chen, Gou-Ling Susie (2003)  
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 (2000)  
Director, Tutorial Services  
B.S., University of California, Los Angeles  
M.P.A., California Lutheran University  
M.A., California State University, Los Angeles
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Kamaka, Ron (2006)  
Physical Education  
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English, Literature & Journalism  
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M.A., Chapman University

Kemp, Kurt A. (2000)  
Foreign Languages  
A.A., M.A., California State University, Fullerton  
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Keys, S. Carolyn (2001)  
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M.B.A., National University, La Jolla

Khan, M. Zahir (1990)  
Physics & Engineering  
B.E., University of Poona  
M.S., Ohio State University  
Registered Professional Engineer

Khooddam, Kambiz (1999)  
Mathematics, Computer Science  
B.S., M.A., California State University, Long Beach

Kido, Janine (2005)  
Biological Sciences  
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Mathematics, Computer Science  
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King, Nancy L. (1988)  
Counseling  
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King, William F. (1970)  
History, Art History, Geography, Political Science  
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M.A., Ph.D., Claremont Graduate School

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Librarian  
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Communication  
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M.A., Miami University, Ohio  
M.A., California State University, Los Angeles

Knapp, Joshua (2000)  
Psychology, Education  
B.A., University of California, Berkeley  
Ph.D., University of California, Santa Barbara

Kohn, Dafna (2001)  
History, Art History, Geography, Political Science  
B.S., Humboldt State University  
M.S., California State University, Los Angeles

Kojima, Tetsuro (2000)  
Mathematics, Computer Science  
B.A., M.S., California State University, Los Angeles  
Ph.D., University of Southern California

Kolchakian, Misty (2005)  
Psychology, Education  
B.S., University of Florida  
M.A., Ph.D., University of Maryland, College Park

Krider, Terrance M. (1981)  
Respiratory Therapy  
A.S., Washtenaw Community College  
B.S., Loma Linda University

Kunkler, Constance (2006)  
Nursing  
B.S.N., M.S.N., California State University, Dominguez Hills

Landeros, Darlene (2001)  
Child Development  
A.A., Rio Hondo Community College  
B.A., University of LaVerne  
M.A., Pacific Oaks College

Lane, David C. (1989)  
Sociology, Philosophy  
A.A., Los Angeles Valley Community College  
B.A., California State University, Northridge  
M.A., Graduate Theological Union, Berkeley  
M.A., Ph.D., University of California, San Diego

Lawlor, Elizabeth (2000)  
Biological Sciences  
A.B., Brown University  
M.A., Ph.D., University of California, Riverside

Lawrence, Helen (1990)  
Counseling  
B.A., Montclair State College  
M.S., Hunter College

Lawson, M. Alan (1990)  
Business Administration  
B.A., University of Utah  
M.B.A., California State University, Los Angeles  
J.D., American College of Law, Brea, California

Leader, Jennifer (2006)  
American Language  
M.A., Azusa Pacific University  
Ph.D., Claremont Graduate University

Ledeboer, Lisa (2006)  
Consumer Science & Design Technologies  
B.S., Iowa State University  
M.S., California State University, Northridge

Lee, Eddie (2006)  
Counseling  
B.A., California State Polytechnic, Pomona  
M.S., California State University, Long Beach

Leung, Jenny (2006)  
Chemistry  
B.S., M.S., University of California, Irvine

Lizarraga, Max (1993)  
Architecture & Engineering Design Technology  
B.A., M.A., California State University, Long Beach

History, Art History, Geography, Political Science  
B.A., University of California Berkeley  
M.A., University of Washington, Seattle

Loera-Ramirez Dionne (2001)  
English, Literature & Journalism  
B.A., M.A., California State University, Fullerton

Long, Gary (1984)  
Mathematics, Computer Science  
B.A., M.A., California State University, Fullerton
The Faculty

Long, Susan (1998)
Dean, Arts
B.A., M.A., California State University, Long Beach
Ed.D., Pepperdine University

Long, Terri Smith (1989)
Earth Sciences, Astronomy
B.A., M.S., Ed.D., University of Southern California

Lopez, Audra (2001)
Agricultural Sciences
B.S., M.S., California State Polytechnic University, Pomona

Louie, Charis (2000)
Psychology, Education
B.A., Pomona College
M.A., University of Missouri
Ph.D., University of Missouri, Columbia

Loyd, Rene (1999)
Mathematics, Computer Science
A.S., Crafton Hills Community College
B.S., M.S., University of California, Riverside

Lujan, Angel (1999)
Counseling
B.A., M.A., California State University, Fullerton

McCormick, Elizabeth (1991)
English, Literature & Journalism
B.A., Barnard College
M.A., University of Missouri

McFarland, Thomas (1997)
Earth Sciences, Astronomy
B.A., M.S., Ed.D., University of Southern California

McDonald, Christopher (2002)
Agricultural Sciences
B.S., M.S., California State Polytechnic University, Pomona

Accounting & Management
B.S., San Diego State University
M.B.A., 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

Mece, Jennifer (2001)
Program Director, Histologic Technician
Biological Sciences
A.S., Canadore College, Canada

Magee, 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
B.A., East Los Angeles College
M.A., California State University, Fullerton

Martin, Douglas (1988)
Mathematics, Computer Science
B.A., Messiah College
M.A., California State University, Fullerton

Maynard, Phillip D. (1990)
Communication
B.A., M.A., State University of New York

Counseling
B.A., California State Polytechnic University, Pomona
M.S., California State University, Los Angeles

Nakamura, Amy Bates (2005)
Dance
B.A., California State University, Fullerton
M.F.A., University of California, Irvine

Nejad, Iraj Behbahani (1992)
Chemistry
B.S., Judi Shapur University, Iran
Ph.D., Michigan State University

Mehta, Jaishri (1999)
Computer Information Systems
B.A., M.A., Florida Institute of Technology

Meyer, Elizabetha (2001)
Biological Sciences
B.A., University of Pennsylvania
Ph.D., Michigan State University

Mizaka, Barbara (1990)
American Language
B.A., University of Buffalo
M.Ed., University of Buffalo
J.D., Southwestern University

Meza, Jesse A. (1977)
Photographics
A.A., East Los Angeles College
B.V.E., M.V.E., California State University, Los Angeles

Miller, G. Wayne (1981)
Sign Language
B.S., Gallaudet College, Washington, D.C.
M.A., California State University, Northridge

Millspaugh, Anita (1980)
Computer Information Systems
B.S., M.B.A., California State Polytechnic University, Pomona

Mirman, David (2000)
Biological Sciences
B.A., University of Pennsylvania
M.S., University of California, Davis

Munro, Matthew J. (1998)
Mathematics, Computer Science
B.S., University of Washington
M.A., University of Colorado

Nakamura, Amy Bates (2005)
Dance
B.A., California State University, Fullerton
M.F.A., University of California, Irvine

Nejad, Iraj Behbahani (1992)
Chemistry
B.S., Judi Shapur University, Iran
Ph.D., Michigan State University

Mehta, Jaishri (1999)
Computer Information Systems
B.A., M.A., Florida Institute of Technology

Meyer, Elizabetha (2001)
Biological Sciences
B.A., University of Pennsylvania
Ph.D., Michigan State University

Mizaka, Barbara (1990)
American Language
B.A., University of Buffalo
M.Ed., University of Buffalo
J.D., Southwestern University

Meza, Jesse A. (1977)
Photographics
A.A., East Los Angeles College
B.V.E., M.V.E., California State University, Los Angeles

Miller, G. Wayne (1981)
Sign Language
B.S., Gallaudet College, Washington, D.C.
M.A., California State University, Northridge

Millspaugh, Anita (1980)
Computer Information Systems
B.S., M.B.A., California State Polytechnic University, Pomona

Mirman, David (2000)
Biological Sciences
B.A., University of Pennsylvania
M.S., University of California, Davis

Munro, Matthew J. (1998)
Mathematics, Computer Science
B.S., University of Washington
M.A., University of Colorado

Nakamura, Amy Bates (2005)
Dance
B.A., California State University, Fullerton
M.F.A., University of California, Irvine

Nejad, Iraj Behbahani (1992)
Chemistry
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Ph.D., Michigan State University
Neel, Monique (2006)
Radiologic Technology
A.S., A.A., Mt. San Antonio College
Certified Radiologic Technologist California
Certified Mammographer
R.T., American Registry of Radiologic Technology
R.T. (M), American Registry of Mammography

Chemistry
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Ph.D., University of California, San Diego

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B.A., University of California, San Diego
M.D., University of California, Irvine
Ph.D., University of California, Los Angeles

Nitta, Akira (Art) (2006)
Mathematics, Computer Science
B.A., University of Irvine
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Nixon, Bruce (1999)
Mental Health Technology
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Interim President/CEO
B.A., M.A. University of California, Irvine
Ph.D., University of Southern California

Norton, Carol (1991)
Learning Assistance
B.A., Colorado Women’s College
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O’Brien, Paul (1999)
English, Literature & Journalism
B.A., University of California, Los Angeles
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Ocampo, James (1990)
Director, Assessment & Matriculation
B.A., M.A., California State University, Northridge

Olavarria, Rebecca (2000)
Business Administration
B.A., University of California, Los Angeles
J.D., Brigham Young University

Olajiwola, Joy (2000)
Nursing
A.A., Mt. San Antonio College
A.S., Chaffey College
B.S.N., California State University, Los Angeles
M.S.N., University of Phoenix

Orr, Jondea (2004)
Nursing
A.D.N., Rio Hondo College
B.S.N., California State University, Dominguez Hills
M.S.N., University of Phoenix

Pacheco, Henry J. (1974)
History, Art History, Geography, Political Science
A.A., East Los Angeles College
B.A., California State University, Los Angeles
M.S., University of Southern California
Ph.D., Claremont Graduate School

Parker, Stacy (2001)
Physical Education
B.A., University of California, Irvine
M.Ed., Azusa Pacific University

Parra, Heidi R. (1992)
Mathematics, Computer Science
A.A., Cerroitos College
B.A., M.A., California State University, Fullerton

Pascoe, Virginia (1995)
Biological Sciences
A.A., Cerroitos College
B.S., B.A., M.S., California State University, Long Beach

Patterson, Richard (2002)
Computer Information Systems
B.S., California Polytechnic University, Pomona
M.Div. St. Johns Theologic Seminary

Peck, Herbert (2002)
Aircraft Maintenance & Manufacturing
A.A., Fullerton College

Pedersen, Kirk (1998)
Art, Animation & Broadcasting
B.A., Midland College
M.A., San Francisco State University
M.F.A., Claremont Graduate School

Pellitteri, John (1999)
Counseling, ESL
B.A., California Polytechnic University, Pomona
M.S., University of La Verne
M.A., Psy.D., California School of Professional Psychology

Perez-Garcia, Julie (1999)
Counseling
B.A., University of California, Santa Barbara
Ph.D., Washington State University

Perkins, Robert (2001)
Architecture & Engineering Design Technology
B.S.C.E., Princeton University
M.Arch., University of Colorado

Petersen, Craig A. (1981)
Biological Sciences
B.S., M.S., California State University, Los Angeles

Mathematics, Computer Science
B.A., University of Bucharest
M.S., University of Iowa
M.A., Ph.D., University of Southern California

Preciado, Rosa M. (1975)
Psychology, Education
A.A., Mt. San Antonio College
B.A., California State University, Fullerton
M.A., University of California, Riverside

Prochaska, Cynthia Adam (1990)
English, Literature & Journalism
B.A., M.A., University of California, Santa Barbara

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

Reed, 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

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

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

Rillotta, Linda C. (1989)
Sociology, Philosophy
A.A., Pasadena City College
B.A., M.A., Ph.D., University of Southern California
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<th>Name</th>
<th>Term</th>
<th>Degrees and Institutions</th>
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<td>Ritz, Karol E.</td>
<td>1997</td>
<td>B.A., University of California, Irvine</td>
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<td>M.A., California State University, Fullerton</td>
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<td>Robinson, Carolyn</td>
<td>2006</td>
<td>M.S.Ed., University of Southern California</td>
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<td>Rudd, Terry Shaylor</td>
<td>1988</td>
<td>B.S., California State Polytechnic, Pomona</td>
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<td>Rubenstein, Susie</td>
<td>2005</td>
<td>A.S., Mt. San Antonio College</td>
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<td>Rogus, Linda</td>
<td>2005</td>
<td>M.A., Claremont Graduate University</td>
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<td>2001</td>
<td>A.S., Mt. San Antonio College</td>
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<td>1998</td>
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<td>Rogers, Bruce</td>
<td>1994</td>
<td>Music</td>
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<td>Ritz, Karol E.</td>
<td>1997</td>
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<td>Russell, Paul</td>
<td>1988</td>
<td>B.S., California State Polytechnic University, Pomona</td>
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<td>Ryasko, Charles</td>
<td>2002</td>
<td>A.A., Mt. San Antonio College</td>
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<td>Sanchez, Andrew</td>
<td>2001</td>
<td>Mental Health Technology</td>
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<td>Sanchez, Juan</td>
<td>2005</td>
<td>Physical Education</td>
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<td>Schmidt, David</td>
<td>2002</td>
<td>B.S., Harvey Mudd College</td>
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<td>Schmidt, Sherry</td>
<td>1985</td>
<td>B.A., University of Montana</td>
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<td>Schnurbusch, Karen</td>
<td>2002</td>
<td>B.S., University of California, Santa Barbara</td>
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<td>M.S., University of Illinois, Urbana-Champaign</td>
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<td>Sciore, Donald</td>
<td>1999</td>
<td>Art, Animation &amp; Broadcasting</td>
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<td>Scott, Brian</td>
<td>2001</td>
<td>Agricultural Sciences</td>
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<td>Scott, Sarah</td>
<td>2007</td>
<td>Biological Sciences</td>
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<td>Shannon, Cynthia</td>
<td>1991</td>
<td>Biological Sciences</td>
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<td>Sharpe, Paul W.</td>
<td>1997</td>
<td>Public Services</td>
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<tr>
<td>Shepherd, John C.</td>
<td>1981</td>
<td>Aircraft Maintenance &amp; Manufacturing</td>
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<td>Sholars, Joan</td>
<td>1991</td>
<td>Mathematics, Computer Science</td>
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<td>Shull, Stephen</td>
<td>2006</td>
<td>Fire Technology</td>
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<td>Silva, Lawrence</td>
<td>2005</td>
<td>Learning Assistance</td>
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<td>Smith, Daniel E.</td>
<td>1998</td>
<td>Art, Animation &amp; Broadcasting</td>
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<td>Smith, James B.</td>
<td>1998</td>
<td>Counseling</td>
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<td>Smith, John K.</td>
<td>2001</td>
<td>Public Services</td>
</tr>
<tr>
<td>Soares, Darrow</td>
<td>1992</td>
<td>Air Conditioning, Welding, &amp; Water Technologies</td>
</tr>
<tr>
<td>Sommer, John</td>
<td>2007</td>
<td>Administration of Justice</td>
</tr>
<tr>
<td>Soto, Lina</td>
<td>2001</td>
<td>Counseling</td>
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<tr>
<td>Sparks-Mackey, Maxine</td>
<td>1990</td>
<td>History, Art History, Geography, Political Science</td>
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<td>Spaulding, Ralph A.</td>
<td>1970</td>
<td>History, Art History, Geography, Political Science</td>
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<tr>
<td>Stepp-Bolling, Eric</td>
<td>1977</td>
<td>Learning Assistance</td>
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<tr>
<td>Stern, Kerry</td>
<td>1990</td>
<td>Dean, Library &amp; Learning Resources</td>
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<td>A.A., Citrus Community College</td>
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<td>M.S.L.S., University of Southern California</td>
</tr>
<tr>
<td>Name</td>
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</table>
| Stewart-Thomas, Michelle (2007) | Sociology, Philosophy  
M.S., Purdue University  
M.S., M.A., Fuller Theological Seminary  
Ph.D., University of Southern California, Los Angeles |                            |                                                                                |
B.S., M.S., California State University, Long Beach |                            |                                                                                |
B.A., Hamilton College  
M.A., State University of New York  
Ph.D., University of Rhode Island |                            |                                                                                |
B.S., Eastern Michigan University  
M.F.A., University of Iowa |                            |                                                                                |
| Stokes, Nona (1990) | American Language  
B.S., Howard University  
M.S., Ph.D., Georgetown University |                            |                                                                                |
B.S., California State Polytechnic University, Pomona |                            |                                                                                |
| Stroud, Byron (1990) | Aircraft Maintenance & Manufacturing  
A.S., Chaffey College  
B.S., California State Polytechnic University, Pomona  
F.A.A. Certificates, Airframe and Powerplant, Inspection Authorization  
Private Pilot, F.C.C.  
F.A.A. Safety Counselor  
F.A.A. Designated Mechanic Examiner |                            |                                                                                |
| Swartz, Pauline (2006) | Librarian  
B.A., University of California, Santa Cruz  
MLIS, University of California, Los Angeles |                            |                                                                                |
B.S., M.S., California State University, Long Beach |                            |                                                                                |
B.S., California State Polytechnic University, Pomona  
M.S., University of California, Riverside |                            |                                                                                |
| Tatoian, Vahe (1990) | Physics, Engineering  
B.S., Yerevan University, Armenia  
M.S., Drexel University |                            |                                                                                |
B.S., M.S., California State Polytechnic University, Pomona |                            |                                                                                |
| Teske, Margaret (2002) | Coordinator, ESL & Intercultural Programs  
B.S., University of Northern Colorado  
M.S., Colorado State University |                            |                                                                                |
| Thomas, Antoine (2006) | Counseling  
B.A., University of California, Riverside  
M.S., California State University, Long Beach |                            |                                                                                |
B.A., Westmont College  
M.A., Ph.D., Claremont Graduate University |                            |                                                                                |
| Todd, Douglas (1995) | Physical Education  
A.A., El Camino College  
B.A., California State University, Long Beach  
M.A., California State University, Dominguez Hills |                            |                                                                                |
| Tran, Frank (2002) | Mathematics, Computer Science  
B.S., University of California, Davis  
M.A., University of California, Santa Barbara |                            |                                                                                |
B.A., M.A., California State University, Chico |                            |                                                                                |
| Troxell, Cameron (2001) | Mathematics, Computer Science  
B.A., Gonzaga University  
M.S., University of Verona |                            |                                                                                |
| Trujillo, Tammy (1999) | Art, Animation & Broadcasting  
A.A., Long Beach City College  
B.A., California State University, Fullerton |                            |                                                                                |
| Trull, Stephen Tyler (2001) | History, Art History, Geography, Political Science  
A.A., Mt. San Antonio College  
B.A., California State University, Fullerton  
M.A., University of California, Santa Barbara |                            |                                                                                |
| Truttmann, Janet (2002) | Chemistry  
B.A., University of California, San Diego  
Ph.D., California Institute of Technology |                            |                                                                                |
| Tunstall, Christine M. (1990) | Disabled Student Programs & Services  
B.A., M.A., University of Michigan |                            |                                                                                |
| Uyeno, Gary (1999) | Registered Veterinary Technology  
B.S., University of California, Davis  
D.V.M., Iowa State University |                            |                                                                                |
| Uyeno, Gary (1999) | Registered Veterinary Technology  
B.S., University of California, Davis  
D.V.M., Iowa State University |                            |                                                                                |
| Vail, Deidre Tucker (1991) | Biological Sciences  
B.S., California State Polytechnic University, Pomona  
M.S., University of California, Irvine |                            |                                                                                |
A.A., Cerritos College  
B.A., California State University, Long Beach  
M.A., College of St. Thomas |                            |                                                                                |
| Vice, Robert Glenn (1999) | Business Administration  
B.A., Florida State University  
M.A., Louisiana State University, New Orleans |                            |                                                                                |
| Vigano, Barbara (1989) | Foreign Languages  
B.A., M.A., California State University, Fullerton |                            |                                                                                |
| Villarreal, Guillermo (1991) | Foreign Languages  
B.A., California State University, Long Beach  
M.A., Ph.D., University of California, Irvine |                            |                                                                                |
| Villegas, Martha H. (1973) | Art, Animation & Broadcasting  
A.A., Citrus College  
B.A., M.A., California State University, Los Angeles |                            |                                                                                |
| Viskosy, Thomas (1980) | Agricultural Sciences  
A.S., Mt. San Antonio College  
B.S., M.S., California State Polytechnic University, San Luis Obispo  
Ph.D., Michigan State University |                            |                                                                                |
| Vitullo, John (2002) | Communication  
B.A., Southern Utah University  
M.A., Ball State University |                            |                                                                                |
A.A., San Bernardino Valley College  
B.S., M.S., California State Polytechnic University, Pomona |                            |                                                                                |
B.S., University of California, Los Angeles  
M.S., California State University, Long Beach |                            |                                                                                |
The Faculty

Walker, Christopher N. (1980)
Disabled Student Programs & Services
B.A., California Lutheran College
M.A., California State University, Northridge
Ph.D., University of Iowa

Walker, Lori (2000)
Learning Assistance
B.S., University of California, Riverside
M.A., Ph.D., Claremont Graduate University

Walker, Rebecca (2006)
Earth Sciences, Astronomy
B.A., Hamilton College
M.S., University of Arizona

Ward, Elizabeth (1999)
Physical Education
B.A., California State University, Long Beach
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Watanabe, Kathleen (1996)
Child Development
B.S., California State University, Los Angeles

Watanabe, Larry (1992)
Physical Education
B.S., California State University, Fullerton
M.A., Azusa Pacific College

Weatherilt, Sandra (2001)
Consumer Science & Design Technologies
B.A., M.A., California State University, Long Beach

Earth Sciences, Astronomy
B.A., B.S., Syracuse University, New York
M.S., Duke University

West, David (2005)
Aeronautics and Transportation
A.S., Mt. San Antonio College

Whalen, Margaret F. (1989)
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An Era of "New Beginnings" . . .

Having celebrated 60 years of excellence and distinction, Mt. SAC has launched an era of "new beginnings," offering you ENHANCED programs, a REVITALIZED campus, and FRESH opportunities to foster your success in today's world. Whether you are pursuing one of our 200 degree and certificate programs or upgrading your job skills, our faculty and staff remain fully committed to providing you QUALITY instruction, student SUPPORT services and a first-rate LEARN, GROW and THRIVE!