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ACCREDITATION
Mt. San Antonio College is reviewed and accredited by the Accrediting Commission for Community and Junior Colleges (ACCJC) of the Western Association of Schools and Colleges. This accreditation authorizes the College to offer courses that parallel the first two years of the curricula for state universities. The ACCJC can be contacted in writing at 10 Commercial Boulevard, Suite 204, Novato, California 94945 or by phone at (415) 506-6234.

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 2014-15 Catalog does not constitute a contract or terms of a contract between the student and the College.

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

(909) 274-7500
TTY # (909) 594-3447
(Hearing Impaired)

www.mtsac.edu

Committed to Student Success
President's Message

I am pleased to release this 2014-15 College Catalog. It is a compilation of courses, programs, support services, degree offerings, and transfer information that you will need to chart your course to academic success.

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

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

As we head toward our 70th anniversary in a couple of years, Mt. SAC remains committed to student success—a tagline that is reiterated on each chapter page of this catalog. To the many freshmen who will enter Mt. SAC this fall, and to all current and returning students, we welcome you with open arms and wish you much success as you now become a part of our legacy of excellence and distinction.

Dr. William T. Scroggins
President & CEO

Committed to Student Success

Fred Chyr, President
Dr. David K. Hall, Vice President
Judy Chen Haggerty, Esq., Clerk
Dr. Manuel Baca, Member
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Board of Trustees


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2014-15 College Calendar

Summer Intersession 2014 — 6 Weeks

June 23 2014 Summer Intersession begins
July 4 Independence Day (campus closed)
July 16 Registration begins for 2014 Fall Semester
August 3 2014 Summer Intersession ends

Fall Semester 2014 — 16 Weeks

August 25 2014 Fall Semester begins

September 1 Labor Day (campus closed)
September 5 Last day to add a class
September 5 Last day to change residency for 2014 Fall Semester
October 6 Last day to petition for Fall Semester graduation

November 3 International Student Application Due for 2015 Spring Semester
November 11 Veteran’s Day (campus closed)
November 12 Registration begins for 2015 Winter Intersession
November 27 - 30 Thanksgiving Recess (campus closed)

December 5 Last day to petition for Winter Intersession graduation
December 8 - 14 Final Exams (see: www.mtsac.edu/finalexams for schedule)
December 14 2014 Fall Semester ends
December 15 - January 2 Winter Recess for students
### 2014-15 College Calendar

#### Winter Intersession 2015 — 6 Weeks

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
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<tr>
<td>January 1, 2015</td>
<td>New Year's Day (campus closed)</td>
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<tr>
<td>January 5</td>
<td>2015 Winter Intersession begins</td>
</tr>
<tr>
<td>January 14</td>
<td>Registration begins for 2015 Spring Semester</td>
</tr>
<tr>
<td>January 19</td>
<td>Martin Luther King, Jr. Day (campus closed)</td>
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<tr>
<td>February 13</td>
<td>Lincoln's Birthday (campus closed)</td>
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<tr>
<td>February 15</td>
<td>2015 Winter Intersession ends</td>
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<tr>
<td>February 16</td>
<td>President's Day (campus closed)</td>
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#### Spring Semester 2015 — 16 Weeks

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<td>February 23</td>
<td>2015 Spring Semester begins</td>
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<tr>
<td>March 30</td>
<td>Cesar Chavez Day Observed (campus closed)</td>
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<tr>
<td>April 6</td>
<td>International Student Application Due for 2015 Summer Intersession</td>
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<tr>
<td>May 13</td>
<td>Registration begins for 2015 Summer Intersession</td>
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<td>May 25</td>
<td>Memorial Day (campus closed)</td>
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<tr>
<td>June 1</td>
<td>International Student Application Due for 2015 Fall Semester</td>
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<tr>
<td>June 8 - 14</td>
<td>Final Exams (see: <a href="http://www.mtsac.edu/finalexams">www.mtsac.edu/finalexams</a> for schedule)</td>
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<tr>
<td>June 12</td>
<td>Commencement</td>
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<td>June 14</td>
<td>2015 Spring Semester ends</td>
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</table>
## College Directory

The main College telephone number is (909) 274-7500.
For direct access to the offices listed below, dial (909) 274 + the 4-digit extension listed below.

<table>
<thead>
<tr>
<th>Office/Program</th>
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<tbody>
<tr>
<td>Academic Counselor for Student Athletes</td>
<td>5929</td>
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<td>Academic Senate</td>
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<td>*Accounting &amp; Management</td>
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<td>Admissions &amp; Records</td>
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<td>*Aeronautics &amp; Transportation</td>
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<td>Affirmative Action</td>
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<td>Agricultural Sciences</td>
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<td>*Air Conditioning, Water Technology &amp; Welding</td>
<td>5100, 4639</td>
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<td>*Aircraft Maintenance &amp; Manufacturing Technology</td>
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<td>*American Language</td>
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<td>Aspire</td>
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<td>Campus Security</td>
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<td>*Earth Sciences &amp; Astronomy</td>
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<td>*English, Literature &amp; Journalism</td>
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<td>*Health Center</td>
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<td>Help Desk (IT)</td>
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<td>High School Outreach</td>
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<td>*History &amp; Art History</td>
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<td>*Histotechnology</td>
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<td>Learning Lab</td>
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<td>*Library &amp; Learning Resources Division</td>
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<td>Marketing &amp; Public Affairs Office</td>
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<tr>
<td>*Mathematics, Computer Sciences</td>
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*Instructional programs and departments
SECTION ONE

The College

Committed to Student Success
MT. SAN ANTONIO COLLEGE

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

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

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

Instruction at Mt. SAC is organized under a divisional structure with departments within each division. At present, the College has eight instructional divisions within which are 42 departments.

HISTORY

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

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

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

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

Mt. SAC has emerged as a leader in education not only in the San Gabriel Valley, but in the state. It is California's largest, single-campus community college with a combined Credit, Continuing Education, and Community Service student enrollment of over 65,000. In 2012 Mt. SAC proudly celebrated 66 years of educational excellence. The College will continue to offer access to quality programs and services as well as provide an environment for educational excellence throughout the 21st Century.

MISSION, VISION AND VALUES

Mission

The mission of Mt. San Antonio College is to support students in achieving their educational goals in an environment of academic excellence.

Vision

Mt. SAC strives to be regarded as one of the premier community colleges in the nation. We will be viewed as a leader in community college teaching, programs, and services.

As a premier community college, we will provide access to quality, focusing on student success within a climate of integrity and respect. We will earn this reputation by consistently exceeding the expectations of our students, our staff, and our 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 our 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.
# COLLEGE ORGANIZATION

<table>
<thead>
<tr>
<th>Position</th>
<th>Name</th>
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<tbody>
<tr>
<td>President</td>
<td>Fred Cýr</td>
</tr>
<tr>
<td>Vice President</td>
<td>Dr. David K. Hall</td>
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<tr>
<td>Clerk</td>
<td>Judy Chen Haggerty, Esq.</td>
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<tr>
<td>Member</td>
<td>Rosanne Bader</td>
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<td>Member</td>
<td>Dr. Manuel Baca</td>
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<td>Robert F. Hidalgo</td>
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<td>Laura Santos</td>
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<tr>
<td>Student Trustee</td>
<td>Paola Mendoza</td>
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<tr>
<td>College President &amp; CEO</td>
<td>Dr. William Scroggins</td>
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## Administrative Services

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<tbody>
<tr>
<td>Vice President, Administrative Services</td>
<td>Michael Gregoryk</td>
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<tr>
<td>Associate Vice President, Fiscal Services</td>
<td>Rosa Royce</td>
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<tr>
<td>Director, Accounting Services</td>
<td>Sid Young</td>
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<tr>
<td>Manager, Accounting</td>
<td>Shelly Zahrt-Egbert</td>
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<tr>
<td>Director, Bookstore and Operations</td>
<td>Suzanne Luetjen</td>
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<tr>
<td>Manager, Bursar's Office</td>
<td>Sheree Culross</td>
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<tr>
<td>Manager, Custodial Services</td>
<td>Ken McAlpin</td>
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<tr>
<td>Director, Facilities Planning and Management</td>
<td>Gary Nellesen</td>
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<tr>
<td>Assistant Director, Facilities Planning and Management</td>
<td>Bill Asher</td>
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<tr>
<td>Manager, Facilities Support Services</td>
<td>Becky Mitchell</td>
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<td>Project Manager, Facilities</td>
<td>Roger Sned</td>
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<td>Assistant Director, Fiscal Services</td>
<td>Monica Cantu</td>
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<td>Teresa Patterson</td>
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<td>Director, Safety, Health Benefits, and Risk Management</td>
<td>Karen Saldana</td>
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<td>Director, Technical Services</td>
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## Human Resources

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<tr>
<td>Vice President, Human Resources</td>
<td>James Czaja</td>
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<td>Director, Human Resources</td>
<td>Cynthia Hoover</td>
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<td>Director, Equal Employment Opportunity</td>
<td>Lorraine Jones</td>
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## Information and Educational Technology

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<td>Chief Technology Officer</td>
<td>Victor Belinski</td>
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<td>Director, Enterprise Applications Systems</td>
<td>Robert Hughes</td>
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<tr>
<td>Director, Academic Technology and Infrastructure</td>
<td>Dale Vickers</td>
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<tr>
<td>Manager, Data and Network Security</td>
<td>Chris Schroeder</td>
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## President's Office

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<td>Director, Public Affairs</td>
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## Instruction

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<td>Dean, Instruction Services</td>
<td>Dr. Terri Long</td>
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<td>Dean, Arts Division</td>
<td>Dr. Susan Long</td>
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<tr>
<td>Dean, Business Division</td>
<td>Dr. Jourama McGowan</td>
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<td>Associate Dean, Business Division</td>
<td>Jennifer Galbraith</td>
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<td>Director, Child Development Center</td>
<td>Tamika Addison</td>
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<td>James Jenkins</td>
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<td>Associate Dean, Humanities and Social Sciences Division</td>
<td>Dr. Jeanne Marie Velickev</td>
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<td>Director, Writing Center</td>
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<tr>
<td>Dean, Kinesiology, Athletics and Dance Division</td>
<td>Joseph Jennum</td>
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<tr>
<td>Associate Dean, Kinesiology, Athletics and Dance Division</td>
<td>Debbie Cavion</td>
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<tr>
<td>Dean, Library and Learning Resources Division</td>
<td>Meghan M. Chen</td>
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<td>Director, Learning Assistance Center</td>
<td>Bailey Smith</td>
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<tr>
<td>Dean, Natural Sciences Division</td>
<td>Matthew Judd</td>
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<td>Associate Dean, Natural Sciences Division (Interim)</td>
<td>Kãrelyn Hoover</td>
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<td>Director, ESL and Intercultural Programs</td>
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<td>Coordinator, ESL Curriculum and Assessment</td>
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<td>Director, Research and Institutional Effectiveness</td>
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<td>Director, Honors</td>
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The Arts Division is comprised of four educational departments offering numerous degrees and certificates that provide students with the knowledge and training necessary for transferring to a university or fulfilling career opportunities in the arts. The division houses an acclaimed art gallery and supports the new state-of-the-art Design Technology Center. The division offers 6 Associate in Science degrees, 2 Associate in Arts degrees, 2 Associate in Arts for Transfer degrees, and 17 Certificates of Achievement. The Arts Division's educational departments and program areas are:

- Fine Arts (Drawing, Figure, Painting, Sculpture, Ceramics)
- Commercial & Entertainment Arts (Animation & Gaming, Graphic Design & Illustration, Photography, Radio & Television)
- Music (Theory, Choral, Instrumental)
- Theater (Acting, Design & Technical, Playwriting)
- Art Gallery (Gallery Design and Operations)

INSTRUCTIONAL DIVISIONS

Business Division

Dr. Joumana McGowan, Dean
Jennifer Galbraith, Associate Dean

The Business Division's educational programs and services are designed to respond to the changing trends, needs, and job requirements of the community, state, and national economy while ensuring a high quality of education. The division offers 20 Associate in Science degrees, 2 Associate in Arts degrees, and 69 Certificates. The Business Division also includes the services of the new Child Development Center and the Center of Excellence.

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

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

Continuing Education Division

Donna Burns, Dean

Continuing Education provides a variety of noncredit courses and certificates as well as an array of fee-based, not-for-credit community services classes and contract training. The Division offers 9 Certificate of Competency and 48 Certificates in Occupational Training. The division provides assessment for placement, orientation, registration, educational advising, and counseling services embedded within its programs.

Continuing Education programs include:

- Adult Basic Education
- Adult High School Diploma & GED
- Citizenship
- Education for Older Adults
- English as a Second Language
- Short-Term Vocational (Business, Health Careers, Technology, and other fields)
## INSTRUCTIONAL DIVISIONS

### Humanities and Social Sciences Division

**James Jenkins, Dean**  
**Dr. Jeanne Marie Velickovic, Associate Dean**  
The Humanities and Social Sciences Division provides students with a broad selection of general education courses in language arts, humanities, and social sciences. It offers 2 Associate in Science degrees, 4 Associate in Arts degrees, 7 Associate in Arts for Transfer degrees and one Certificate of Achievement. The Division publishes the student newspaper and magazine and houses the Honors program, the Study Abroad program, Teacher Preparation Institute, Writing Center, and Speech & Sign Success Center.  
The Humanities and Social Sciences Division's educational departments and their programs are:  
- American Language  
- Communication (speech and forensics)  
- English, Literature and Journalism (English, journalism, literature and Latin)  
- Foreign Languages (Arabic, Chinese, French, German, Italian, Japanese and Spanish)  
- History and Art History (history, art history and humanities)  
- Geography and Political Science  
- Psychology  
- Sign Language (American Sign Language and interpreting)  
- Sociology and Philosophy  

### Kinesiology, Athletics and Dance Division

**Joe Jennum, Dean/Athletics Director**  
**Debbie Cavion, Associate Dean/Associate Athletics Director**  
The Kinesiology Athletics and Dance Division has been a leader among community colleges for over 60 years. Our division provides a wide range of opportunities within the disciplines of kinesiology, wellness, fitness, coaching, athletic training and dance, as well as fielding 20 competitive teams. The division offers one Associate in Science degree, one Associate in Arts degree and 5 Certificates. The Division also houses the WIN student athlete academic resource center, Exercise Science/Wellness Center and Athletics and Dance venues throughout the campus.  
The Kinesiology Athletics and Dance Division's educational departments and their programs areas are:  
- Dance (Theory and Activity)  
- Kinesiology (Adaptive, Aquatics, Athletics, Fitness, Individual, Team Sports, and Theory)  

### Library and Learning Resources Division

**Meghan M. Chen, Dean**  
**Bailey Smith, Director, Learning Assistance Center**  
The Library and Learning Resources Division offers services in the Learning Assistance Center, the Library, Tutorial Services and the Distance Learning Program which provide academic support for all students at the College. Faculty teaching distance learning courses are also supported by the division's Online Learning Support Center.  
Housed in the Learning Technology Center, the Library and Learning Resources Division's educational departments and their program areas are:  
- Learning Assistance (Reading, Study Skills, Learning Communities, and Basic Skills Math)  
- Library

### Natural Sciences Division

**Matthew Judd, Dean**  
**Karelyn Hoover, Associate Dean (Interim)**  
The Natural Sciences Division provides diverse educational opportunities and programs within its six departments. Academic and vocational programs are available and provide students with state of the art equipment in modern lab settings. The Division offers 11 Associate in Science degrees, 2 Associate in Arts degrees, one Associate in Science for Transfer degree and 12 Certificates of Achievement. Natural Sciences houses a variety of facilities for learning and community outreach including the Math Activities Resource Center (MARC) and Transfer Math Activities Resource Center (T-MARC), the Jim and Eleanor Randall Planetarium, an Astronomy Observatory and a 25 acre Wildlife Sanctuary.  
The Natural Sciences Division departments include:  
- Agriculture (Horticulture, Animal Science and Registered Veterinary Technician)  
- Biology (Anatomy & Physiology, Anthropology, Biological Sciences, Botany, Histotechnology Program and Microbiology)  
- Chemistry (Inorganic Chemistry, Organic Chemistry and Biochemistry)  
- Earth Sciences (Astronomy, Geology, Meteorology and Oceanography)  
- Mathematics & Computer Science  
- Physics and Engineering (Engineering, Physical Sciences, Physics and Surveying)  

### Technology and Health Division

**Dr. Sarah Daum, Dean**  
**Jemma Blake-Judd, Associate Dean**  
The Technology and Health Division provides 31 Associate in Science degrees, one Associate in Science for Transfer degree, and 31 certificates in both occupational and vocational programs in the areas of technology, public services, and health care. Programs are driven by industry needs and many are governed by state and national accreditation agencies. The Technology and Health Division includes the services of the Health Careers Resource Center and the Mt. SAC Fire Academy.  
The Division’s educational departments and their program areas are:  
- Aeronautics, Transportation (Aeronautics, Air Traffic Control, Transportation)  
- Air Conditioning & Welding Technologies (Air Conditioning & Refrigeration, Building Automation Systems, Welding)  
- Aircraft Maintenance Technology (Aircraft Maintenance Technician)  
- Architecture, Industrial Design Engineering & Manufacturing  
- Fire Technology  
- Medical Services (Emergency Medical Technician, Paramedic)  
- Mental Health (Psychiatric Technician)  
- Nursing  
- Public Services (Alcohol and Drug Counseling, Administration of Justice)  
- Radiologic Technology  
- Respiratory Therapy
SECTION TWO

Matriculation

Committed to Student Success
ADMISSIONS AND REGISTRATION

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

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

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

Residency Requirements (for fee purposes)
Residency Guidelines
This statement is a general summary of the principal rules of residency and their exceptions and should not be construed as the actual expression of the laws used by the Mt. San Antonio College Admissions Officer for residency determination. Reference should be made to Chapter 1 (commencing with Section 68000) of Part 41 of Division 5 of the California Education Code, regulations of the Board of Governors of the California Community Colleges in Chapter 5 (commencing with Section 54000) of Division 6 of Title 5 of the California Code of Regulations, and the regulations and guidelines available in the Admissions and Records Office. Students wishing to change their residency must submit a Residency Reclassification form to the Admissions & Records Office prior to the deadline listed in the Schedule of Classes.

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

1. Resident: A "resident" is a person who is eligible to establish California residency for tuition purposes or who has resided within California for at least one year and who has established a legal residence in California prior to the residency determination date.
2. Nonresident: A "nonresident" student is one who has not resided in the State for more than one year prior to the residency determination date and who has not established legal residence or who is not eligible to establish California residency for tuition purposes.

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

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

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

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

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

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

Special Admit application packets may be obtained in the Counseling Center or online at [http://www.mtsac.edu/students/counseling/special_admit.html](http://www.mtsac.edu/students/counseling/special_admit.html)

Only college level courses may be taken as part of the Special Admit program. Students needing to make up a high school deficiency can apply to participate in the High School Referral Program. For more information, contact the Continuing Education Center at (909) 274-4937.

A parent/guardian approval form allowing the student to participate must be submitted as part of the application process. Students must acknowledge that their student will be instructed in an adult environment and that the student will be expected to conform to all college policies.

Students who have previously enrolled and who have dropped their courses and/or have not made satisfactory progress will not be allowed to continue their participation in the Special Admit program. Highly-gifted students enrolled in grades 9 and earlier may be considered for limited enrollment. To participate, students must meet all of the same criteria required for 10th, 11th and 12th grade Special Admit students.

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

College credit will be earned as a result of taking courses at Mt. San Antonio College and those grades will become part of the student’s permanent college record. High school credit may be possible at the discretion of the receiving high school. Students are advised to contact their high school counselor.

Evaluation of Other College Coursework
Mt. San Antonio College reserves the right to evaluate work completed at 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.
Acceptance of International Coursework

from Accredited Colleges and Universities outside the United States

Mt. San Antonio College may accept for equivalence, general education and courses that meet other local graduation requirements, that have been successfully completed at institutions of higher education outside the United States from international applicants:

- Transcripts from high school and/or college attended
- 2+2 Articulation Equivalency Form
- High School Transcript
- ROP/Adult Education Certificate of Completion
- ROP/Adult Education Certificate of Completion
- Forms are available from participating high school instructors.

Secondary instructors submit all required paperwork to the Tech Prep office at Mt. San Antonio College. Articulation forms will be accepted from authorized secondary instructors only.

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

For more information on articulations with high schools, ROPs and adult schools, please contact the CTE Transitions Office, Bldg. 21D, at (909) 274-5252.

Admission of International Students

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

- Mt. SAC Application for Admission
- International (F-1 Visa) Student Application
- Application processing fee of $50.00 (Must be paid in U.S. currency (check or money order) made payable to Mt. San Antonio College. Personal checks must have the accountholder's name and address preprinted on them.
- Confidential Financial support documents
- Qualifying score from one of the following College approved tests:
  1) TOEFL (minimum score of 133 on the computer-based test, or 450 on the paper-based test, or a score of 45 on the Internet-based test). Information regarding TOEFL may be obtained at www toe fl.org. If you are mailing your score directly, our institution code is "4494".
  2) IELTS (overall band score of 4.5 or higher). Information regarding IELTS may be obtained at www.ielts.org.
  3) Mt. SAC's AWE (Assessment of Written English) - Placement in AMLA 41W or higher. Information regarding the AWE may be obtained at www.mtsac.edu/students/assessment.
- 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
Students are responsible for purchase of their own textbooks and supplies. Costs for books and supplies for full-time students may average $300-$600 per semester depending on the program of study selected. F-1 Visa students can obtain all application materials from our College Website at [http://www.mtsac.edu/international/index.html](http://www.mtsac.edu/international/index.html).

TOEFL scores, IELTS scores, admission applications (both college and International Student Application), and all supporting materials must be received on or before the term deadlines listed above. Students will be required to take the Assessment of Written English (AWE) when they arrive at Mt. San Antonio College. Applications received after the deadline will be considered for the following semester. The application fee must accompany the admission application. (AP 5010)

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

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

**Enrollment Fees and Expenses**
Students are charged an enrollment fee of $46 per unit and a mandatory Health Services fee for each term at Mt. San Antonio College. A Student Representation Fee and an optional Student Activities fee are collected for Fall and Spring semesters only. In addition to these fees, non-resident and international students also pay tuition of $216 per unit. Students wishing to park in the student parking lots are required to have a valid Student Parking Permit which can be purchased online through the student portal. Fees are subject to change. Financial aid, scholarships and Board of Governors Fee Waiver (BOGW) may be available to assist with fee payment. Please consult the Schedule of Classes online for current fees and related information. (BP 5030, AP 5030)

Students are responsible for purchase of their own textbooks and supplies. Costs for books and supplies for full-time students may average $300-$600 per semester depending on the program of study selected.

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<thead>
<tr>
<th>Application Deadline</th>
<th>Classes Begin</th>
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<tr>
<td><strong>Fall Semester</strong></td>
<td>First Monday of June</td>
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<td>Late August</td>
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<td><strong>Summer Intersession</strong></td>
<td>First Monday of April</td>
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<td>Late June</td>
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<td><strong>Spring Semester</strong></td>
<td>First Monday of November</td>
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<td>Late February</td>
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**Student Representation Fee**
The Student Representation Fee is a mandatory fee that is collected during fall and spring registration for the purpose of providing Mt. SAC students the means to state their positions and viewpoints before city, county, district, and state government agencies. A student may choose not to pay the Student Representation Fee for political, religious, financial, or moral reasons. If a student chooses to opt-out of paying the fee for the stated reasons, then the student must: 1) visit the Student Life Office in Building 9C or [http://as.mtsac.edu](http://as.mtsac.edu) to get the opt-out form; 2) complete the form and; 3) return it to the Bursar’s Office prior to paying the college fees.

**Refund of Fees**
To be eligible for a refund, students must drop their classes by the refund deadline for that class. The deadline can be found on their Student Schedule/Receipt. If the student’s class has been officially dropped, or cancelled by the College, the student will receive a refund. Please see the current Schedule of Classes for refund information.

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

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

**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 valid financial obligation to the College (e.g., returned check, unpaid enrollment fees, unpaid loan, equipment breakage, unpaid library fine, etc.). The hold shall be released when the student satisfactorily meets the financial obligation. When an outstanding financial obligation owed to the College is sent to our collection agencies, Chancellor’s Office Tax Offset Program, the collection cost incurred will be added to the original amount owed.

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

Any student having a disciplinary hold with the Student Life Office will not be allowed to transact College business until the hold is satisfied. (BP 5035, AP 5035)

**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. For more information, visit [http://www.mtsac.edu/assessment](http://www.mtsac.edu/assessment).

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

**English Placement**
The College utilizes the Assessment of Written English (AWE) to evaluate students’ writing skills. Most students are required to have their English competency assessed prior to registration. Students will be given a writing prompt and the writing sample will be evaluated by at least two faculty members. Based on the faculty evaluation of the student’s writing skills, they are placed in one of the following categories:

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

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

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

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

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

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

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

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

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

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

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

ABILITY TO BENEFIT
Beginning on July 1, 2012, federal regulations will require all students applying for financial aid to have a high school diploma, GED, or certificate of high school proficiency. The Mt. SAC Assessment Center will no longer be offering the Ability To Benefit test to students. For further information regarding the federal government’s Ability To Benefit regulations, contact the Financial Aid Office.

Note: This rule change does not prevent students without a high school Ability To Benefit test to students. For further information regarding the federal government’s 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. Orientation includes information regarding college programs, services, procedures, student responsibilities, and other related information.

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. Visit http://mtsac.edu/counseling/orientation.html

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

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

EXEMPTION FROM ASSESSMENT, ORIENTATION AND/OR AN EDUCATIONAL PLAN
A student is exempt from assessment, orientation and/or an educational plan if the student has:

1. completed an Associate degree or higher from a regionally accredited institution. The student must provide a copy of transcripts as documentation of degree attainment.

2. enrolled at the college for a reason other than career development or advancement, transfer, attainment or a degree or certificate of achievement, or completion of a basic skills or English as a Second Language course sequence.

3. earned 60 units or more from a regionally accredited institution. The student must provide a copy of transcripts as documentation of units earned from another institution.

4. enrolled at Mt. SAC solely to take a course that is legally mandated for employment as defined in Education Code section 55000 or necessary in response to a significant change in industry or licensure standards.

5. enrolled as a special admit student pursuant to Education Code section 76001.

Exemption forms are available in both the Assessment Center & the Counseling Center.

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

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

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

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

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

- The prerequisite or corequisite has not been established in accordance with the College’s process for establishing prerequisites and corequisites;

- The prerequisite or corequisite is in violation of State Title 5 regulations;

- The prerequisite or corequisite is either unlawfully discriminatory or is being applied in an unlawfully discriminatory manner;

- The student has the knowledge or ability to succeed in the course or program despite not meeting the prerequisite or corequisite;

- The student will be subject to undue delay in attaining the goal of his or her educational plan because the prerequisite or corequisite course has not been made reasonably available; or

- Such other grounds for challenge as may be established by the district governing board.

The student must provide appropriate documentation when filing a challenge with the Director of Assessment and Matriculation. Documentation may include, but is not limited to, high school or college transcripts, additional test results, work experience, or an on-campus writing sample. Prior enrollment in the course does not exempt a student from the current prerequisite of that course. (BP 4260, AP 4260)
ACADEMIC POLICIES AND REQUIREMENTS
For detailed information regarding Mt. San Antonio College Board of Trustees Policies (BP) and Administrative Procedures (AP), go to http://www.mtsac.edu/governance/trustees/policies.html

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

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

ATTENDANCE AND ENROLLMENT
Attendance
Students are expected to attend all class meetings. It is the students’ responsibility to know the attendance and absence policies of their professors. Professors may take attendance at all class meetings. It is the responsibility of each professor to inform his/her classes of the attendance and absence policies at the beginning of each semester.

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

Professors may drop students from a class and students may not drop themselves from any class or withdraw from the college after 60% of the class has elapsed. All students who are registered for a class after 60% of the class has elapsed shall receive an academic grade (A,B,C,D,F,P,NP) or an incomplete mark for the class.

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

Intersessions and other short term classes
For short term classes, students who drop a class, withdraw from college or are dropped from a class by the professor after 20% of the class has elapsed will receive a mark of “W” (Withdrawal) on their permanent record.

Professors may not drop students from a class and students may not drop themselves from any class or withdraw from the college after 60% of the class has elapsed. All students who are registered for a class after 60% of the class has elapsed shall receive an academic grade (A,B,C,D,F,P,NP) or an incomplete mark for the class.

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

Basic Skills Limitations
Students are limited to completing no more than 30 units of courses identified as “Pre-collegiate Basic Skills” while enrolled at Mt. SAC. Courses in this category include pre-collegiate basic skills courses in Math, English, Reading, and Learning Skills. Students enrolled in the American Language program and students with learning disabilities are exempted from this policy. Waivers to exceed the 30 unit limit are available to students who show significant progress and will be limited to a specified period of time and/or number of units. Students requesting this waiver must submit a Petition for Exceptional Action to the Board of Appeals. Petitions are available in the Counseling Center in Admissions & Records. Students who reach 30 units of pre-collegiate basic skills courses and who are not ready to pursue degree applicable courses are subject to remedial dismissal. (BP 4220, AP 4222)

Repeatable Courses
Certain courses may be taken more than once for credit. If the course is designated as repeatable, the course may be repeated for the number of times allowable.

The following types of courses may be repeatable:

a) Courses for which repetition is necessary to meet the major requirements of CSU or UC for completion of a Bachelor’s degree.
b) Intercollegiate athletics courses in which student athletes are enrolled to participate in an organized competitive sport.
c) Intercollegiate academic or vocational competition courses that are designed specifically for non-athletic competitive events.

In some cases, a group of courses may carry a collective limitation on the number of allowed repetitions for that entire group/cluster of courses (for example, when a similar educational activity is offered in beginning and advanced course levels.) To determine whether a course is repeatable, refer to Section 10, Course Descriptions, in this Catalog.

Repeating Courses Previously Passed
Courses for which satisfactory grades of “A,” “B,” “C,” or “Pass” are received may not be repeated, according to current State regulations. Only upon extenuating circumstances will repetition in courses for which the student has satisfactorily passed be allowed. Students with extenuating circumstances may file a Petition for Exceptional Action form in the Admissions and Records Office. Students who repeat courses based on this provision will not earn additional units or grade points toward improving or changing the previous grade earned in the class or toward changing the overall grade point average.

Limitations on Repeating Courses
Students who have recorded a mark of “W,” “D,” “F,” “No Credit” or “No Pass” will only be allowed to repeat the same course two times, for a total maximum enrollment of three times. The student’s permanent academic
record will be annotated such that all course work that has been taken and forgiven or repeated will remain legible, insuring a true and complete academic history.

In cases in which the student's grade and/or withdrawal was the result of an extenuating circumstance, students may file a petition to repeat a class an additional time (whether the prior enrollment was due to a substandard grade or a withdrawal.) Extenuating circumstances are verified accidents, illnesses or other circumstances beyond the control of the student.

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.

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

Continuing Student:
- A continuing student is one who enrolls in at least one credit course and receives a grade, including a W in any term during the academic year.
- A continuing student retains rights to follow graduation and/or certificate requirements for the year they entered or any catalog thereafter, as long as the student maintains continuous enrollment.

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

CREDITS AND GRADES
Definition of a Unit of Credit
The standard “unit” represents one hour in class recitation and two hours of outside preparation per week or its equivalent for one semester. By this definition, “unit” is synonymous with “semester lecture hour.” In laboratory work and certain activity courses such as kinesiology, choir, drafting, etc., a greater number of in class hours per week is required for each unit of credit. During intersessions, 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.
- 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 designated grading scale marks on his/her permanent records.

Incomplete
A student may request an Incomplete or the professor may initiate the petition on behalf of the student who is currently passing the class under the following circumstances: verifiable illness or emergency or verifiable work conflict. Incompletes may only be issued for requirements missed commencing the fourteenth (14) week of a regular semester class or after 85% of a short-term or summer 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 professor.

If granted, the student must complete all outstanding course requirements stipulated by the professor within one year, or the Incomplete will become a letter grade assigned by the professor.

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 60% of the course, and a mark of “W” shall be made on the student’s academic record. 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 20% of the course.

MW — Military Withdrawal: The “MW,” military withdrawal, mark shall be assigned only for students who are members of an active or reserve military unit, and who receive orders compelling a withdrawal from courses. Upon verification of such order, this symbol may be assigned at any time after the period established by the governing board during which no notation is made for withdrawals. The “MW” shall not be counted in determining registration priority, progress probation, and dismissal calculations. A “W” previously incurred commencing January 1, 1990, and which meets the definition of “MW” may be changed to “MW.” (AP 5013)

Final Examinations
A final examination shall be administered in all classes in compliance with the Final Exam Schedule prepared each term. If a student is unable
to attend a scheduled final examination, he/she must contact his/her instructor to make other arrangements. A student who does not take a final examination and who does not qualify for an "Incomplete" (see Grading System-Incomplete), shall be assigned the grade “F” or “Zero” for the examination, and this grade shall be averaged in determining the final course grade.

Pass/No Pass Grades
Some courses offered at Mt. San Antonio College are available to students on two different grading options: letter grade (A, B, C, D, F) or Pass/No Pass (Pass = A, B, or C; NP = D, F). A few classes are offered for Pass/No Pass only. These courses are designed to encourage students to explore areas outside their major field of study in order to broaden and enrich their collegiate experience, and to afford an opportunity for departments to offer courses in which there is diminished emphasis on grades. The Pass/No Pass grading option is not available for General Education courses or for courses used to meet major requirements. In courses offering the grading option, students are automatically registered on a letter grade basis at the time of registration. If a change is desired, the student can make the change on their student portal or in person with a picture ID at the Admissions and Records Office in the Student Services Center. The grading option may not be changed at a later date. Students enrolled in short-term courses of less than semester length, but greater than six weeks, must determine their grading option no later than the end of the first 30% of the course or 30% of the required hours of instruction listed in the description for an open-entry/open-exit course. In any short-term course of less than six weeks, students must determine their grading option at the time of registration.

Credit toward graduation by using Pass/No Pass classes is limited to a maximum of 16 units (AP 4232). Courses taken for Pass/No Pass are not counted in calculating grade point average, or in determining eligibility for the Dean's List or President's List, but such courses are considered in progress probation and dismissal procedures.

Students are cautioned that upon transfer to baccalaureate institutions, “NP” grades typically are considered to be “F” grades. (BP 4230, AP 4232)

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. (BP 4235, AP 4235)

### ADVANCED PLACEMENT EXAMINATIONS

<table>
<thead>
<tr>
<th>AP Examination</th>
<th>Score Needed / GE/Equivalency</th>
<th>Mt. SAC GE Area</th>
<th>GE Units</th>
<th>Equivalent Mt. SAC Course</th>
<th>Degree Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Art History</td>
<td>3</td>
<td>C1 or C2</td>
<td>3</td>
<td>AHIS 4 + AHIS 5</td>
<td>6</td>
</tr>
<tr>
<td>Biology</td>
<td>3</td>
<td>B2</td>
<td>3</td>
<td>BIOL 1</td>
<td>6</td>
</tr>
<tr>
<td>Calculus AB*</td>
<td><strong>3/4</strong></td>
<td>Math Competency</td>
<td>N/A</td>
<td>MATH 180</td>
<td>3</td>
</tr>
<tr>
<td>Calculus BC</td>
<td>3/3/4</td>
<td>Math Competency</td>
<td>N/A</td>
<td>MATH 180 or MATH 181</td>
<td>6</td>
</tr>
<tr>
<td>Chemistry</td>
<td>3</td>
<td>B1</td>
<td>3</td>
<td>None</td>
<td>6</td>
</tr>
<tr>
<td>Chinese Language and Culture</td>
<td>3</td>
<td>C2</td>
<td>3</td>
<td>CHIN 1 + CHIN 2</td>
<td>6</td>
</tr>
<tr>
<td>Computer Science A</td>
<td>3</td>
<td>N/A</td>
<td>3</td>
<td>CSCI 145</td>
<td>3</td>
</tr>
<tr>
<td>Computer Science AB</td>
<td>3</td>
<td>N/A</td>
<td>3</td>
<td>None</td>
<td>6</td>
</tr>
<tr>
<td>English Language and Composition</td>
<td>3</td>
<td>A2</td>
<td>3</td>
<td>ENGL 1A</td>
<td>6</td>
</tr>
<tr>
<td>English Literature and Composition</td>
<td>3</td>
<td>A2 + C2</td>
<td>3</td>
<td>ENGL 1A + ENGL 1B</td>
<td>6</td>
</tr>
<tr>
<td>Environmental Science</td>
<td>3</td>
<td>B1</td>
<td>3</td>
<td>None</td>
<td>4</td>
</tr>
<tr>
<td>European History</td>
<td>3</td>
<td>C2 or D2</td>
<td>3</td>
<td>None</td>
<td>6</td>
</tr>
<tr>
<td>French Language and Culture</td>
<td>3</td>
<td>C2</td>
<td>3</td>
<td>FRCH 1 + FRCH 2</td>
<td>6</td>
</tr>
<tr>
<td>French Literature</td>
<td>3</td>
<td>C2</td>
<td>3</td>
<td>FRCH 3</td>
<td>6</td>
</tr>
<tr>
<td>German Language and Culture</td>
<td>3</td>
<td>C2</td>
<td>3</td>
<td>GERM 1 + GERM 2</td>
<td>6</td>
</tr>
<tr>
<td>Government and Politics: Comparative</td>
<td>3</td>
<td>D2</td>
<td>3</td>
<td>None</td>
<td>3</td>
</tr>
<tr>
<td>Government and Politics: US</td>
<td>3</td>
<td>D1</td>
<td>3</td>
<td>None</td>
<td>3</td>
</tr>
<tr>
<td>Human Geography</td>
<td>3</td>
<td>D2</td>
<td>3</td>
<td>GEOG 2</td>
<td>3</td>
</tr>
<tr>
<td>Italian Language and Culture</td>
<td>3</td>
<td>C2</td>
<td>3</td>
<td>ITAL 1 + ITAL 2</td>
<td>6</td>
</tr>
<tr>
<td>Japanese Language and Culture</td>
<td>3</td>
<td>C2</td>
<td>3</td>
<td>JAPN 1 + JAPN 2</td>
<td>6</td>
</tr>
<tr>
<td>Latin: Literature</td>
<td>3</td>
<td>C2</td>
<td>3</td>
<td>None</td>
<td>6</td>
</tr>
<tr>
<td>Latin: Vergil</td>
<td>3</td>
<td>C2</td>
<td>3</td>
<td>None</td>
<td>3</td>
</tr>
<tr>
<td>Macroeconomics</td>
<td>3/4</td>
<td>D2</td>
<td>3</td>
<td>BUSC 1A</td>
<td>3</td>
</tr>
<tr>
<td>Microeconomics</td>
<td>3/4</td>
<td>D2</td>
<td>3</td>
<td>BUSC 1B</td>
<td>3</td>
</tr>
<tr>
<td>Music Theory</td>
<td>3</td>
<td>C1</td>
<td>3</td>
<td>MUS 7</td>
<td>6</td>
</tr>
<tr>
<td>Physics B</td>
<td>3</td>
<td>B1</td>
<td>3</td>
<td>None</td>
<td>6</td>
</tr>
<tr>
<td>Physics C: Electricity and Magnetism</td>
<td>3</td>
<td>B1</td>
<td>3</td>
<td>None</td>
<td>4</td>
</tr>
<tr>
<td>Physics C: Mechanics</td>
<td>3</td>
<td>B1</td>
<td>3</td>
<td>None</td>
<td>4</td>
</tr>
<tr>
<td>Psychology</td>
<td>3</td>
<td>D2</td>
<td>3</td>
<td>PSYC 1A</td>
<td>3</td>
</tr>
<tr>
<td>Spanish Language</td>
<td>3</td>
<td>C2</td>
<td>3</td>
<td>SPAN 1 + SPAN 2</td>
<td>6</td>
</tr>
<tr>
<td>Spanish Literature</td>
<td>3</td>
<td>C2</td>
<td>3</td>
<td>SPAN 3</td>
<td>6</td>
</tr>
<tr>
<td>Statistics</td>
<td>3</td>
<td>Math Competency</td>
<td>N/A</td>
<td>MATH 110</td>
<td>3</td>
</tr>
<tr>
<td>Studio Art - 2D</td>
<td>3</td>
<td>General education and course equivalency credit based on portfolio review</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Studio Art - 3D</td>
<td>3</td>
<td>General education and course equivalency credit based on portfolio review</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Studio Art - Drawing</td>
<td>3</td>
<td>General education and course equivalency credit based on portfolio review</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>United States History</td>
<td>3</td>
<td>C2 or D1</td>
<td>3</td>
<td>HIST 1</td>
<td>6</td>
</tr>
<tr>
<td>World History</td>
<td>3</td>
<td>C2 or D2</td>
<td>3</td>
<td>None</td>
<td>6</td>
</tr>
</tbody>
</table>

* A score of 3 on the Calculus AB Advanced Placement Exam will earn a student three (3) degree applicable units, Math Competency and Eligibility for MATH 180.
Pursuant to Section 55050 of Title 5 of the California Code of Regulations, 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, and the Counseling Center.

Advanced Placement Credit for Mt. SAC General Education Requirements for the Associate Degree
Students who have a qualifying Advanced Placement (AP) test score (3 or above) may petition to utilize the results of their AP examinations to meet Mt SAC general education requirements in the areas identified in the table on page 13.

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 in the table. Only IB Higher Level (HL) certificate examinations with scores of 5, 6 or 7 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.

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. (AP 4285)

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 Experiences in the Armed Services and the National Guide to College Credit for Workforce Training; The College Board in reference to its recommendation of Advanced Placement Examinations, and credit recommendations from other similar nationally recognized academic institutions, including Mt. San Antonio College’s policy for comprehensive examinations.

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

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

The Department Chair from the appropriate program will validate the license and its currency. Admissions and Records will certify that the requirements have been met, grant the appropriate number of units, and apply extra-institutional learning credit toward the degree. (AP 4285)

### INTERNATIONAL BACCALAUREATE PROGRAM

<table>
<thead>
<tr>
<th>International Baccalaureate (IB)</th>
<th>Score Needed for Equivalency</th>
<th>Mt. SAC GE Area</th>
<th>Units of GE</th>
<th>Equivalent Mt. SAC Course</th>
<th>Degree Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>IB Biology</td>
<td>5</td>
<td>B2</td>
<td>3</td>
<td>BIOL 1</td>
<td>6</td>
</tr>
<tr>
<td>IB Chemistry</td>
<td>5</td>
<td>B1</td>
<td>3</td>
<td>None</td>
<td>6</td>
</tr>
<tr>
<td>IB Economics</td>
<td>5</td>
<td>D2</td>
<td>3</td>
<td>BUSC 1A</td>
<td>6</td>
</tr>
<tr>
<td>IB Geography</td>
<td>5</td>
<td>D2</td>
<td>3</td>
<td>GEOG 2</td>
<td>6</td>
</tr>
<tr>
<td>IB History (any region)</td>
<td>5</td>
<td>C2 or D2</td>
<td>3</td>
<td>None</td>
<td>6</td>
</tr>
<tr>
<td>IB Language A1 (English)</td>
<td>5</td>
<td>C2</td>
<td>3</td>
<td>None</td>
<td>6</td>
</tr>
<tr>
<td>IB Language A2</td>
<td>5</td>
<td>C2</td>
<td>3</td>
<td>None</td>
<td>6</td>
</tr>
<tr>
<td>IB Language A2 (Classical Languages)</td>
<td>5</td>
<td>C2</td>
<td>3</td>
<td>LATN 1</td>
<td>6</td>
</tr>
<tr>
<td>IB Mathematics</td>
<td>4/5</td>
<td>Math Competency</td>
<td>N/A</td>
<td>MATH 160/MATH 180</td>
<td>6</td>
</tr>
<tr>
<td>IB Physics</td>
<td>5</td>
<td>B1</td>
<td>3</td>
<td>None</td>
<td>6</td>
</tr>
<tr>
<td>IB Psychology</td>
<td>5</td>
<td>D2</td>
<td>3</td>
<td>PSYC 1A</td>
<td>3</td>
</tr>
<tr>
<td>IB Theatre Arts</td>
<td>5</td>
<td>C1</td>
<td>3</td>
<td>THTR 9</td>
<td>6</td>
</tr>
</tbody>
</table>
Academic Policies and Requirements

Credit for Military Training
Mt. San Antonio College will grant four units of Baccalaureate level elective credits for military experience without regard to the field of service. Additional credit may be allowed for specific programs of training and credits earned through the United States Armed Forces Institute. (AP 4285)

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

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

Graduation Honors
Graduation honors are awarded as follows:

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

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

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

Honors Program
Building 26A-1680, Ext. 4528
Mt. San Antonio College offers an Honors Program for students who have demonstrated academic excellence. Honors courses are specially designed sections of transferable courses and, with a few exceptions, are part of the IGETC requirement list.

Completion of the Honors Program makes a student eligible for priority admission consideration from the following universities: UCLA, UC Irvine, Chapman University, Pitzer College and Pomona College. In addition to an enhanced curriculum for motivated students, Honors Program students receive library privileges at UC Irvine and UCLA and an Honors Certificate and medal upon honors certification.

Entrance Requirements
- High School Students — Eligibility for ENGL 1A; 3.5 GPA; letter of recommendation; short essay
- Mt. San Antonio College Students — Nine transferable units; Eligibility for ENGL 1A; 3.2 GPA, short essay, letter of recommendation (Waivers can be obtained through the Honors Program Office for highly motivated students with a competitive GPA, an in-progress grade report and professor recommendation.)

Requirements for “Honors Scholar” Designation
- Complete 15 units of honors courses with a minimum 3.2 GPA for honors certification
- Maintain a 3.2 GPA

Alpha Gamma Sigma
Mt. San Antonio College sponsors the Zeta Chapter of Alpha Gamma Sigma, the scholastic honorary organization for California Community Colleges. Full-time and part-time students are eligible for membership.

Membership requires campus and community involvement (service hours). 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.

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 G.P.A. 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.

Scholarships provided by the Zeta Chapter and the State Alpha Gamma Sigma Organization are available to actively involved members. Some baccalaureate granting institutions provide scholarships limited to Alpha Gamma Sigma members. Applications are available in Student Life, Building 9C.

For further information and review of academic eligibility, students should consult an Alpha Gamma Sigma Officer or an Alpha Gamma Sigma Advisor.

Phi Theta Kappa
Mt. SAC sponsors the Alpha Omega Alpha Chapter of Phi Theta Kappa, an international scholastic honorary organization for two-year colleges. 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.

There are several advantages which accompany this honor, including recognition at graduation and access to scholarships offered to members by more than 700 U.S. colleges and universities. For further information and review of academic eligibility, students should consult a Counselor or a Phi Theta Kappa advisor. Applications are available in the Honors Program office in Building 26A-1680.

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

Academic Probation
A student is placed on Academic Probation when the student has:

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

Progress Probation
A student is placed on Progress Probation when the student has:

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

Upon recording of Academic or Progress Probation, a student shall have their registration restricted, be required to participate in a prescribed counseling intervention and be limited to enroll in a maximum of 12 units in subsequent semesters, and 4 units in a winter or summer session, while on probation. (BP 4250, AP 4250)

Clearing Probation

1. Academic Probation - The student shall be cleared from Academic Probation when the student’s cumulative grade point average is 2.0 or higher.

2. Progress Probation - The student shall be cleared from Progress Probation when the student’s cumulative percentage of units with “W”, “I” and “NP” drops below fifty percent. (BP 4250)
### Probation and Dismissal Status

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

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

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

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

### Appeal of Dismissal

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

### Reinstatement after Dismissal

A dismissed student may request reinstatement through the Counseling Center after an interval of one semester. Requests must be made NO LATER THAN TWO WEEKS BEFORE the beginning of the semester. Requests for reinstatement will not be allowed thereafter. If approved, the reinstated student shall be required to participate in a prescribed counseling intervention and complete a contract for reinstatement, which shall include the number of units in which the student shall enroll.

A reinstated student shall remain on a probationary, reinstated status until clearance of probation. A reinstated student shall also remain on contract until clearance of probation. Failure to comply with the terms and conditions of the contracts may result in subsequent dismissal. (BP 4250, AP 4255)

### RECORDS

#### Definition of Educational Records

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

#### Challenge of Educational Records

1. Any student may file a written request with the Records Officer of the District (Dean, Enrollment Management) to remove information recorded in the student’s records which is alleged to be: 1) inaccurate; 2) an unsubstantiated personal conclusion or inference; 3) a conclusion or inference outside of the observer’s area of competence; or 4) not based on the personal observation of the named person with the time and place of the observation of the named person with the time and place of the observation noted.
2. If the student is not satisfied with the determination made by the Dean, Enrollment Management, the student may utilize the existing college student grievance process. (AP 5045)

### 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 coursework completed at Mt. San Antonio College and/or other accredited colleges or universities. Courses used to qualify for Academic Renewal which were completed at another college or university must be verified by official college transcripts.
C. A time period of at least two years must have elapsed since the end of the term of substandard work to be disregarded.
D. Academic renewal will apply only to substandard grades: D, F, and NP.
E. The permanent academic record shall be annotated in such a manner that all work remains legible, insuring a true and complete academic history.
F. Mt. San Antonio College does not guarantee that academic renewal will be honored by institutions outside of the District. This determination will be made by the transfer institution.
G. Students requesting academic renewal should consult with a counselor to file a petition. (BP 4240, AP 4240)

### Transcripts

Official transcripts of work completed at Mt. San Antonio College may be ordered online through [http://my.mtsac.edu](http://my.mtsac.edu) student portal. The first two requests for transcripts are free; subsequent standard transcript requests are $5.00 each. Unofficial/student copies of transcripts may be obtained at [http://my.mtsac.edu](http://my.mtsac.edu). (AP 5040)

Further information regarding transcript services is available at [http://www.mtsac.edu/students/admissions/transcripts.html](http://www.mtsac.edu/students/admissions/transcripts.html)
SECTION FOUR

Student Services and Student Life

Committed to Student Success
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
http://www.mtsac.edu/admissions
Admissions and Records is usually the first office prospective students visit and the last office students visit before transferring or graduating. Some of the services provided:
1. Admission: All students must submit an application for admission in order to attend Mt. San Antonio College. The admission application generates a Permit to Register and establishes a historical student record for each student. Transcripts from other colleges must be submitted for prerequisite eligibility checks.
2. Course Registration: All registration is conducted online via the web at http://my.mtsac.edu. Registration instructions can be found in the current Schedule of Classes or online at http://my.mtsac.edu.
3. Admissions and Records is the official custodian of student records. This office maintains student demographic information such as name, address and Mt. SAC student identification number, student academic history, issues I-20’s for International Students, processes Petitions for Exceptional Action, transcript and enrollment verification requests, graduation and certificate petitions and distributes diplomas and certificates.
4. Admissions and Records provides computers for student use located in the Student Services Building. These computers provide access to the student portal for students to print unofficial transcripts, final grades, and copies of the Permit to Register. All services are also available at my.mtsac.edu. To use this service, students must have their Mt. SAC Student username.

The Aspire Program
Building 9D, Ext. 5392
http://www.mtsac.edu/aspire

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

The program aims to: develop a sense of community among African-American students, other students, faculty, staff and administrators; demonstrate culturally relevant connections between African-American students and the college; assist students in achieving academic success through progress monitoring, study groups, tutoring, counseling and advisement; and promote awareness of student services and leadership opportunities. The Aspire Learning Community classes provide a combination of English, Reading, Math and/or Counseling courses for students seeking a unique learning experience and a strong sense of community.

Assessment Center
Student Services Center, Ext. 4265
http://www.mtsac.edu/assessment

Students may complete required English, Reading, and Math placement testing in the Assessment Center. Assistance in reviewing course placement is also provided.

The Bridge Program
Building 9D, Ext. 5392
http://www.mtsac.edu/bridge

The Bridge Program is a learning community designed to increase student 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 professors. In this group setting, students have an opportunity to learn about being successful college students and how to utilize college services. Students are supported by Bridge Program staff and counselors, financial aid advisors, as well as transfer and advising specialists.

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

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

Bursar’s Office
Building 4, Lower Level, Ext. 4960
http://www.mtsac.edu/bursars

The Bursar’s Office is responsible for the collection of credit registration fees and other campus fees including parking permits, replacements, parking citation fees, enrollment verification and production cards. Student fees may be paid via the web at http://my.mtsac.edu or in person at the Bursar’s Office.

CARE (Cooperative Agencies Resources for Education)
Student Services Center, Ext. 4500
http://www.mtsac.edu/care

CARE is a supplemental program for EOPS students who are single head of household parents receiving TANF benefits. The program provides additional assistance to students who are:
- Eligible for EOPS
- Enrolled in at least 12 units upon acceptance
- Currently receiving AFDC/TANF assistance, with at least one child under 13 years of age
- At least 18 years old, single head of household
- Have applied for financial aid
- Pursuing a program at Mt. SAC which will lead to a certificate, degree or transfer

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

Career and Transfer Services
Student Services Center, Ext. 4510
http://www.mtsac.edu/transfer

Career and Transfer Services helps students get from Mt. SAC to the next step in their educational journey whether that is a career or transfer to a four-year university. Career and Transfer Services provides a variety of activities, events and resources to help students transfer to universities, solidify career goals, sharpen job acquisition skills, and acquire part- and full-time employment.

Career Services include:
- Job and internship referrals
- Career fairs
- Career acquisition skills workshops

Meeting their Welfare to Work 32/35 hour participation requirements while achieving their personal and educational goals. A variety of support services are provided to facilitate students’ achievement of a degree or certificate:
- Education planning
- Counseling
- Case management
- Tutoring
- Personal development workshops
- Job development/placement assistance
- Advocacy
- Liaison between student and GAIN Services Workers and Eligibility Worker at County Office
- Payment for required books and supplies
- Work-study*
- Childcare*

*Based upon adequate funding

For more information, visit www.mtsac.edu/students/calworks
Disabled Student Programs & Services (DSPS)
http://www.mtsac.edu/counseling
Student Services Center, Ext. 4380
Counseling Center
http://transfer.mtsac.edu

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

To take advantage of the wide array of special programs and services offered, written documentation of disability must be provided by a physician or appropriate professional; the disability must present a limitation to a successful education; the student must demonstrate the ability to benefit from higher education; and self-management skills (mobility, eating and using restrooms without assistance) must be adequate, unless a personal care attendant is utilized. The College does not provide personal care attendants.

Participation in DSPS and all student disability-related information is confidential. Services offered are based on disability-related needs. Some of the services offered by DSPS:

- Access to a computer lab with adaptive hardware and software
- Sign language interpreters
- Notetakers in the classroom
- Tram service on campus
- Priority registration
- Classroom testing accommodations
- Specialized counseling and advising
- Academic and career strategies classes
- Print material in alternate formats (i.e. Braille, e-text)
- Alternate textbooks
- Print materials
- Tram service

Students with a doctor’s verification which requires parking in zones designated as “handicapped parking,” must display on their vehicles a “Disabled Person” placard or “DP” license plate from the State of California Department of Motor Vehicles. Students with a current “Disabled Person” permit and placard or a “DP” license plate are not required to purchase a student parking permit and 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.

DSPS highly recommends that students visit the Department to determine if there are services that may be of assistance while attending Mt. San Antonio College.

Extended Opportunity Programs and Services (EOPS)
Student Services Center, Ext. 4500
http://www.mtsac.edu/eops

Extended Opportunity Programs and Services (EOPS) provides access to higher education for students with academic and financial disadvantages.

The College provides financial assistance in the form of grants, loans, scholarships, and part-time employment for students who meet financial aid program eligibility requirements. Student financial aid awards are contingent upon continued funding from Federal and State government agencies.

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

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

The information reported on the FAFSA may be verified by the Financial Aid Office using a parent’s and/or student’s Internal Revenue Services Forms 1040, 1040A or 1040EZ. Other documents may also be requested such as a copy of the Social Security card, Alien Registration card (if applicable) or other types of documents needed to verify or resolve conflicting data.

To be eligible for financial aid, students must meet the following criteria:

1. Have fewer than 40 degree applicable units
2. Qualify to receive a Board of Governors Enrollment Fee Waiver under Method A, B or 0 EFC
3. Be educationally disadvantaged
4. Be an emancipated Foster Youth

Financial Aid
Student Services Center, Ext. 4450
http://www.mtsac.edu/financialaid

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

The College provides financial assistance in the form of grants, loans, scholarships, and part-time employment for students who meet financial aid program eligibility requirements. Student financial aid awards are contingent upon continued funding from Federal and State government agencies.

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

1. Having a high school diploma or equivalent such as a GED.
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
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 be required to repay any unearned financial aid received. At Mt. SAC, a student’s withdrawal date is determined as follows:

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

The California Community College Board of Governors Fee Waiver (BOGW) program is available to qualified California residents. Only the enrollment fee is waived, and the student is responsible for paying the additional fees assessed. There are three methods to qualify for a Board of Governors Fee Waiver: (1) Temporary Assistance for Needy Families (TANF), Supplemental Security Income (SSI), or General Relief recipient, or (2) Household size/family income, or (3) Financial need as determined by filing the Free Application for Federal Student Aid (FAFSA). In addition to the three methods, there are special classifications that qualify for an enrollment fee waiver, which is subject to certification and/or documentation. Refer to the BOGW Fee Waiver application for a list of these classifications. To apply, go to http://www.cccapply.org/bog_waiver/

In addition, the college administers a variety of scholarship programs. Information about the College Scholarship Program can be obtained in the Financial Aid Office or visit http://www.mtsac.edu/scholarships.

California Dream Act
The California Dream Act of 2011 consists of two bills, Assembly Bill 130 (AB 130), signed into law by Governor Jerry Brown on June 25, 2011; and Assembly Bill 131 (AB 131) signed into law by Governor Brown on October 8, 2011. As a result of the California Dream Act, those students who are eligible for the non-resident tuition exemption (under Assembly Bill S40, or AB S40), but who are ineligible for federal financial aid are now eligible to receive grants and scholarships from the State of California and institutional sources, such as Board of Governor’s Fee Waiver (BOG), Cal Grant, and/or institutional scholarships.

Under AB S40, a student who is without a valid immigration status may request exemption from paying nonresident tuition if the student:

- Attended a California high school for 3 or more years, AND
- Graduated from a California high school or passed the GED or California High School Proficiency Exam.

Students who wish to qualify as AB S40 students must complete and submit a California Nonresident Tuition Exemption Request (sometimes referred to as an AB S40 Affidavit) with required documentation to the Admissions and Records Office at Mt. SAC.

The California Student Aid Commission’s Dream Act Application (https://dream.csac.ca.gov/) is used to determine the financial eligibility of students who meet the qualifications of AB S40, and who are without a valid immigration status. The application collects basic personal and income information to determine student eligibility for funding under AB 131. Apply between January 1 and March 2 of each year for priority consideration.

Students will need to complete the Dream Application every year to determine eligibility for state and institutional aid. Students should complete and submit Mt SAC’s AB S40 Affidavit (California Non-Resident Tuition Exemption Request form) in order to begin a review of eligibility under AB S40.

The International Student Center
Student Services Center, Ext. 5032
http://www.mtsac.edu/international/student-center.html

The International Student Center, located on the upper level of the Student Services Center (98B), is a place where F-1 students can connect with one another and the international community. Students will find comfortable spaces to network with friends, computer stations available for their academic needs as well as referrals to student services and resources. Students with questions related to the College or a personal need will find friendly staff available to assist.

International Student Programs
Student Services Center, Ext. 4415
http://www.mtsac.edu/international

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

Public Safety Escort Service, Ext. 4233
http://www.mtsac.edu/safety

Mt. San Antonio College offers a Security Escort Service from 6:30 p.m. to 10:15 p.m., Monday - Thursday. Trained personnel will escort students safely to their car. Escorts are stationed at various locations on campus and can be identified by their yellow jackets and I.D. badges. Please refer to the map below to identify Escort locations. Students may also request a Security Escort by calling (909) 274-4233.

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

Student Health Services
Building 67B, Ext. 4400
http://www.mtsac.edu/students/healthcenter

Medical, chiropractic, personal counseling, nursing and health education services are provided. Additional services include laboratory tests, tuberculosis screening, limited prescription medication, immunizations, pregnancy testing and referrals. All credit students who are currently enrolled and attending classes are eligible. Part-time faculty are eligible for select services. Some fees may apply. Professional health services are provided primarily on an appointment basis. Same-day appointments are also available; call between 8:00 and 8:30 a.m. First aid services are provided for all student, employees and guests of the College.
Veterans Resource Center (VRC)
Building 16C, Ext. 4520
http://www.mtsac.edu/veterans/vrc.html

The Veterans Resource Center (VRC) establishes an innovative, collaborative effort to ease the transition for student Veterans to Mt. SAC. Student VRC services include: a Veterans Lounge; student Veteran computer stations; one-on-one FAFSA assistance; one-on-one scholarship research/essay assistance; DSPS Instructional Specialist; Educational/Career Counseling; one-on-one VA educational benefits assistance; one-on-one my.mtsac portal navigation assistance; and on and off-campus service referrals.

Veterans Services Center
Student Services Center, Ext. 4520
http://www.mtsac.edu/veterans

The Veterans Services Center, located on the upper level of the Student Services Center, provides assistance to Veterans and dependents seeking educational and/or vocational training under Title 38, United States Code. The College cooperates with the U.S. Department of Veterans Affairs (VA) and with the California Department of Rehabilitation in assisting Veterans with certification of benefit requests. The College maintains the Veterans Services Center to assist Veterans and/or dependents in all matters pertaining to Veterans educational benefits.

Veterans and dependents are required to comply with all applicable regulations that pertain to required attendance and progress that the student (Veteran or dependent) must meet in order to receive educational benefits under Title 38, United States Code. “W’s,” “NC,” and “F” grades are considered punitive grades. Adds, Drops, Withdrawals, and last day of attendance must be reported at once. The law requires that educational assistance benefits to Veterans and other eligible persons be discontinued when the student ceases to make satisfactory progress toward completion of his or her training objective. Please refer to the Mt. San Antonio College Probation and Dismissal Policies in this Catalog. The Veteran or dependent has the responsibility to adhere to these standards of attendance and progress and to notify the Veterans Services Center of any change in status that would affect the collecting of Veterans educational benefits.

Veterans and/or dependents must submit a “Veteran’s Request for Active Educational Benefits” form each semester to the Veterans Services Center in order to request the continuance of VA educational benefits while attending Mt. SAC. Those eligible for priority registration consideration must submit a Discharge letter (DD Form 214 Member-4 or Service-2) to the Veterans Services Center. The VA requires all entering Veterans to be formally evaluated for military experience to prevent future interruption of educational benefits. All prior transcripts (College or Service) must be received and evaluated by the Mt. SAC Admissions and Records Office. Students must visit the Counseling Center for assistance in completing an educational plan.

For step-by-step instructions in claiming and utilizing educational benefits at Mt. SAC, Veterans and dependents should download the “Veterans Packet” and all required forms at www.mtsac.edu/students/veterans/

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

Associated Students (A.S.) Student Government
Building 9C, Ext. 4525
http://as.mtsac.edu

Associated Students serves as the representative voice for students on all College issues and provides students with an opportunity to develop leadership skills. There are eight A.S. executive officer positions and twenty A.S. Senate positions available for students interested in becoming involved in making a positive difference on campus. The Senate allocates monies to support various College programs, events, and services throughout the year. The SacBookRac sells A.S. discounted amusement park and movie tickets. Associated Students meetings are held every Tuesday in the Student Center, Building 9C, Room S, from 3:00 p.m. - 5:00 p.m.

A.S. Student Activities Fee
The Student Activities Fee is an $11 fee collected every Fall and Spring semester to provide numerous programs and services on campus including book grants, scholarships, cultural programs, speakers, social activities, and discounted amusement park and movie tickets. This fee is optional. Waiving this fee will exclude the student from taking advantage of these benefits. Applications for waivers are available on the Student Portal under Financial Services or in the Student Life Office for the first two weeks of the semester. Refunds will only be issued during the first two weeks of the semester.

Student Clubs and Organizations
Building 9C, Ext. 4525
http://www.mtsac.edu/studentlife/studentlife.html

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

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.

Student Life Center
Building 9C, Ext. 5959
http://www.mtsac.edu/studentlife/studentlifecenter.html

The Student Life Center provides a relaxing area to lounge, watch TV, and play foosball, ping pong, a variety of board games, or video games. Students also have access to free wireless Internet with their laptop. The Student Life Center creates an environment for students to socialize and connect with other students as well as serves as a meeting place for events, activities, clubs and student government. The Student Life Center is also the place to find information about off-campus housing.
SECTION FIVE

Campus Facilities

Committed to Student Success
CAMPUS FACILITIES

Art Gallery
Building 1B, Ext. 4328
http://www.mtsac.edu/artgallery

The Mt. San Antonio College Art Gallery has a long history of outstanding Gallery Exhibitions highlighting prominent international and national artists as well as outstanding faculty and student artists.

The Gallery offers four to five exhibitions per year. Among these are the Faculty Exhibition featuring the works of Mt. San Antonio College faculty artists and the annual Student Exhibition featuring student work from the fine arts, animation, advertising design, illustration, and photography.

Athletic Facilities, Ext. 4630
Hilmer Lodge Stadium, a 13,500-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, volleyball courts, cross-country course, baseball field, softball field, soccer field, a 1,500-seat gymnasium, wrestling gym, strength-training facilities, an Olympic size swimming pool, and an Exercise Science/Wellness Center.

Bookstore (SacBookRac)
Building 9A, Ext. 4475
http://bookstore.mtsac.edu

SacBookRac offers textbooks, school supplies, Mt. SAC apparel, general trade and paperback books, gift items, greeting cards, Metro and Foothill bus passes and houses the Mt. SAC photo ID area. SacBookRac also provides ordering and distribution of faculty caps and gowns.

Students are responsible for obtaining their own textbooks and supplies. Costs for books and supplies for a full-time student average $300-$600 per semester, depending upon the program of study. Students are encouraged to purchase books early, especially to save money by purchasing used books. Books are sold on a first-come, first-served basis.

For further information, contact the Center by phone or visit the website.

Alternative Payment Program (CalWORKs)
The Child Development Center accepts “Alternative Payments” or fees from community agencies and programs such as CalWORKS for childcare.

Interested parents must inquire with their individual CalWORKS Eligibility Worker or GAIN Worker.

Fee Program
Families ineligible for childcare/early education subsidies may enroll in the Fee-based program. The fee schedule is available by contacting the Child Development Center at Ext. 4920

Enrollment
Formal application must be made in person at the Child Development Center. Final acceptance into the program will be determined when eligibility has been established, all paperwork has been completed, and all required fees are paid. State law requires that an oral interview/orientation be completed.

For further information, contact the Center by phone or visit the website.

Food Services
http://www.mtsacdining.com

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

Campus Café
Building 8, Ext. 5284

The Campus Café is located on the west side of campus next to the SacBookRac. Catering is available for small meetings and large banquets.

Subversions — sub sandwiches, soups, wraps, healthy options, and daily specials.

Castillo’s Mexican Grill — fresh tacos, burritos, and salads.

Simply to Go — made fresh “in-house” sandwiches, salads, wraps, healthy snacks, and cookies.

Chef’s Corner — daily fresh breakfast and lunch menu.

Pizza Stop — individual pizzas, flatbread pizza, and fresh made pasta bowls.

Common Grounds featuring Starbucks — we proudly brew hot and cold coffee drinks, frappuccino, fresh baked muffins, scones, and brownies.
WOW at Mountie Grill  
Building 19C, Ext. 4624  
WOW Cafe and Wingery - breakfast, wings, chicken, hamburgers, salads and rice bowls.

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

Mountie Stop  
Building 9A  
Express Stop  
Building 16A  
Prime Stop  
Building 61  
Short Stop  
Building 66

Vending Machines  
Buildings 2, 3, 9C, 23, 26, 28, 30, 31, 40, 45, 47, 50G, 60, 67, 80

Performing Arts Center  
Building 2, Ext. 2050  
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 is designed as a technological, state-of-the-art instructional facility to prepare Mt. San Antonio College students for careers in the performing arts.

The Sophia B. Clarke Theater is a formal 415-seat, full proscenium theater that wraps the audience around a performance. By providing a circular form and box seats at the perimeter, audience intimacy with the stage is maximized. The stage and fly tower are at a professional scale and contain equipment equal to the finest state-of-the-art theaters both regionally and internationally.

The Music Recital Hall provides for intimate musical performances. The Recital Hall is a 250-seat 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.

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 venue is 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) 274-2050  
Box Office Fax: (909) 274-2055  
https://tickets.mtsac.edu

The Mt. San Antonio College Performing Arts Center Box Office is located in the Performing Arts Center Complex adjacent to the Sophia B. Clarke Theater. The current season of events is available on the Box Office website. Ticket orders are accepted online, by telephone or in person. Major credit cards are accepted. All sales are final. Ticket exchanges may be available depending upon the event.

Randall Planetarium  
Building 26C, Ext. 4425  
http://www.mtsac.edu/instruction/sciences/planetarium/

The Randall Planetarium offers instructional support for college classes as well as a wide variety of public programs on a regular basis. The Planetarium facility has a 35-foot-diameter hemispherical dome and seating for up to 75 people.

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, circuit/strength training and cardiorespiratory exercise.

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

Offerings will be provided to students, staff and the community on a fee-based, per-class basis. Please see http://communityed.mtsac.edu for course offerings.

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 Campus Events office at Ext. 4794.
SECTION SIX

Instruction, Learning Resources and Programs of Study

Committed to Student Success
INSTRUCTION
The Office of Instruction provides a wide range of services essential to student success in an environment of academic excellence.

Language Learning Center (LLC)
Building 6, Room 264 South Entrance, Upper Level, Ext. 4580
The Language Learning Center (LLC) offers computer, web, and other media resources for students learning English as another language as well as those studying foreign languages.

Math Activities Resource Center (MARC)
Building 61 - Room 1318, Ext. 5014
The MARC offers free tutoring to Mt. SAC students currently enrolled in Math 50 through Math 71. Resources for checkout include videos, calculators, textbooks and solutions manuals.

Transfer Math Activities Resource Center (T-MARC)
Building 61 - Room 1314, Ext. 5389
The T-MARC offers free math tutoring to Mt. SAC students currently enrolled in Math 100 and above. A variety of resources for in-lab and take-home use are available.

Work Experience Education, Ext.4204
Occupational work experience education is supervised work activity extending classroom-based occupational learning at an on-the-job learning station (work site) related 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 Education must:
1. Have the approval of the assigned work experience professor.
2. Have an occupational or educational goal to which, in the opinion of the professor, 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 professor, 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 professor to serve as a designated employer representative. This representative shall agree, in writing, to accept the following employer responsibilities:
   a. Assist the student in identifying new or expanded on-the-job learning objectives.
   b. Assist in the evaluation of the student's identified on-the-job learning objectives.
   c. Validate hours worked.

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

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

The student enrolled in the work experience education program shall assume and comply with the following responsibilities:
1. Unless otherwise determined, develop measurable learning objectives approved by the professor 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 professor of any work site problems or change in status of duties.
5. Try at all times to represent themselves and the College positively while at the work site.
6. If, prior to enrolling in work experience education, the student is already employed full time by the work site where the work experience will take place, the student must write a report concerning a learning objective that extended beyond the duties of the regular job.

The Writing Center
Building 26B - Room 1561A, Ext. 5325
The Writing Center offers free services to all students. The Center provides one-on-one tutoring in writing for any course at the College. CRLA certified tutors and at least one English professor is present at all times. In addition, the Writing Center offers workshops to help students with common writing issues, such as sentence level errors, thesis statements, essay planning and organization, and beginning college research. The Center also houses a computer lab that is available for student use to work on papers, conduct library and internet research, and develop grammar and writing skills using self-directed educational software. Professional software is loaded on all the computers to allow students to create presentations. Printing (black and white or color), scanning and technical assistance is also available.

Distance Learning Program, Ext.5658
Distance Learning means taking classes that are conducted partially or entirely off-campus “at a distance.” Students and professors communicate with each other using a variety of technologies.

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

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

Learning Assistance Center
Building 6, South Entrance, Lower Level, Learning Technology Center, Ext.4300
The Learning Assistance Center (LAC) helps students succeed in college. The LAC offers instruction to review pre-collegiate skills in math, reading, and writing. Courses in study techniques are also available. Tutorial Services in the Learning Assistance Center provides free tutoring to all Mt. San Antonio College students on a drop-in basis, in study groups, and by appointment. Tutors assist students with coursework in most subject areas and with study skills. The Learning Lab computers and audio-visual materials are available to all students in the community. Students can use the Learning Lab for research, word processing, multimedia assignments, online course work, and to supplement classroom instruction.

Library
Building 6, North Entrance, Upper Level, Learning Technology Center, Ext.4260
The Library offers students, faculty, and staff a wide variety of information resources for their research needs.

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

The library faculty teach information competency through courses, customized classes, drop-in workshops and individualized instruction at the reference desk. The librarians at the library information desk can assist with all aspects of the research process from choosing a topic to searching for and evaluating information in print and electronic formats.
## CREDIT PROGRAMS OF STUDY

Mt. San Antonio College currently offers 85 Associate and Transfer Degrees and 130 Certificates of Achievement and Skills Certificates in a wide range of academic, career and technical areas. These programs of study appeal to a diversity of interests reflecting industry needs and career trends to provide students with the skills and knowledge needed to earn a degree, transfer to a four-year college/university or prepare for employment.

This table presents a current listing of Mt. SAC degrees and certificates. Detailed information regarding each credit program of study can be found in Section 7 and Section 8 of this catalog.

### PROGRAMS

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<td>Nutrition</td>
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</table>

Transfer degrees are Associate in Arts for Transfer degrees and Associate in Science for Transfer degrees.
Associate degrees are Associate in Science degrees and Associate in Arts degrees in Liberal Arts and Sciences with Emphases.
Certificates of Achievement are certificates of at least 18 units.
Skills Certificates are certificates of less than 18 units.
SECTION SEVEN

Programs of Study Leading to a Certificate

Committed to Student Success
### PROGRAMS OF STUDY LEADING TO A CERTIFICATE

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

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

- "Certificates of Achievement" are awarded for completion of an approved program of study meeting certain requirements of the California Community College Chancellor’s Office in terms of total unit values and other criteria. The possession of such a certificate is favorably recognized by business and industry and is frequently a requirement for professional advancement. The awarding of all Certificates of Achievement is noted on a student’s official transcript.

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

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

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

- At least 1/2 of the credits earned toward the certificate must be completed at Mt. San Antonio College.
- A grade of “C” or better must be earned in each course to be applied to the certificate.

Mt. San Antonio College also awards Certificates of Competency and Occupational Training Certificates of Completion for certain non-credit programs of study. Information on these certificates may be found in Section 11 - Continuing Education.

#### SKILLS CERTIFICATES

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<tr>
<th>Program Name</th>
<th>Unit Credit</th>
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<td>Administrative Assistant – Level I</td>
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<td>Athletic Trainer Aide I</td>
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<td>CIS Professional Certificate in C++ Programming</td>
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<tr>
<td>CIS Professional Certificate in Excel and Access</td>
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<td>CIS Professional Certificate in Windows Operating System Administration</td>
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<td>Emergency Medical Technician EMT 90</td>
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<td>Fitness Specialist/Personal Trainer</td>
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<td>Gallery Design/Operation and Art Profession</td>
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<td>Hospitality: Catering</td>
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<td>Hospitality: Food Services</td>
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## Programs of Study Leading to a Certificate

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<tr>
<td>Air Conditioning and Refrigeration</td>
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<td>Alcohol/Drug Counseling</td>
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<td>Animation – 3-D and CG Gaming</td>
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<td>Sign Language/Interpreting</td>
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<tr>
<td>Sports Turf Management</td>
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<td>Television Crew</td>
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</table>
Admininistrative Assistant - Level I
Business Division
Certificate E0516
The Level I Certificate prepares students for entry-level clerical positions where keyboarding is the primary function.

Required Courses:
- BUSO 5 Business English 3.0
- CISB 15 Microcomputer Applications 3.5
- CSI 11 Computer Keyboarding 3.0
- CSHI 41 Office Management Skills 3.0

Total Units 12.5

Animal Science Fundamentals
Natural Sciences Division
Certificate E0360
This certificate program is designed for students to acquire basic knowledge in the fundamentals of Animal Science. This can be utilized to gain entry level employment on farms, ranches and in agricultural sales and services. It is also the first step in the pathway to a career in becoming an educator in Agricultural Sciences. All courses are applicable for degree requirements.

Required Courses:
- AGAN 1 Animal Science 3.0
- AGAN 2 Animal Nutrition 3.0
- AGAN 51 Animal Handling and Restraint 3.0
- AGAN 94 Animal Breeding 3.0
- AGJL 96 Animal Sanitation and Disease Control 3.0

Total Units 15.0

Animation - Game & Interactive Multimedia Design I
Arts Division
Certificate E0339
This multi-level certificate program offers skills needed for creative careers that integrate animation with gaming, video, audio, graphics, and special effects for the Web, broadcast, film, presentation, or mobile content. The Animation - Game & Interactive Multimedia Level I Certificate offers an early exit point of 12 units and provides the skills necessary for entry-level employment as a junior web animator or animation designer.

Required Courses:
- ARTC 100 Graphic Design I 3.0
- ANIM 131 Introduction to Gaming 3.0
- ANIM 172 Motion Graphics, Compositing and Visual Effects 3.0
- ANIM 175 Web Animation With Flash 3.0
- Recommended Elective:
  - ANIM 137A Work Experience in New Digital Media 1.0

Total Units 12.0

Animation - Tradigital Level I
Arts Division
Certificate E0337
This multi-level certificate program provides skills based on the principles of storytelling and animation using both traditional and digital media. These skills lead to employment opportunities as animators, character designers, and storyboard artists for television, film, Web, mobile media, and gaming. The Animation - Tradigital Level I Certificate offers an early exit point of 15 units and provides the skills necessary for entry-level employment in the areas of production assistant or junior storyboard artist.

Required Courses:
- ANIM 101A Drawing - Gesture and Figure 3.0
- ANIM 115 Storyboarding 3.0
- ANIM 116 Character Development 1.5
- ANIM 118 Animal Drawing 1.5
- BUSM 62 Human Resource Management 3.0
- BUSM 61 Business Organization 3.0
- BUSM 20 Principles of Business 3.0
- BUSM 62 Human Resource Management 3.0
- BUSM 61 Business Organization 3.0
- Recommended Elective:
  - ARTD 15A Drawing: Beginning 3.0

Total Units 12.0

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

Required Courses:
- KIN 3 First Aid and CPR 3.0
- or
- KIN 5 Advanced First Aid/CPR/Emergency Response 3.0
- KIN 19 Introduction to Care/Prevention of Activity/Sports-Related Injuries 3.0
- KIN 34 Fitness for Living 3.0
- KIN 92 Work Experience 2.0 - 3.0
- or
- Athletic Training

Total Units 11.0 - 12.0

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

Required Courses:
- BUSM 62 Human Resource Management 3.0
- BUSM 61 Business Organization 3.0
- Recommended Elective:
  - BUSM 62 Human Resource Management 3.0

Total Units 9.0

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

- Business: Human Resource Management Level II (LO534), Level III (LO535)
# Business: International - Level I
## Business Division Certificate E0527
This specialized business certificate is intended to prepare the student to work in the unique and dynamic environment of international business. This program also prepares the student as a business management generalist for companies conducting international trade. This program will afford career opportunities for entry-level employment in international sales and marketing.

### Required Courses:
- BUSM 36 Principles of Marketing 3.0
- BUSM 51 Principles of International Business 3.0
- BUSM 50 Retail Store Management 3.0

### Total Units: 9.0

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

### Business: International Level II (L0597), Level III (L0528)

## Business: Management - Level I
## Business Division Certificate E0525
The Business Management - Level I Certificate is designed to introduce the student to the role of management in business. Management is the efficient use of human and capital resources to accomplish organizational objectives. Students will be exposed to the terms, trends, organizational structure, and opportunities inherent in business management. Upon completion of the Business: Management - Level I Certificate students may qualify for an entry-level management position in California’s diverse economy.

### Required Courses:
- BUSM 20 Principles of Business 3.0
- BUSM 61 Principles of Business Organization and Management 3.0
- BUSM 36 Principles of Marketing 3.0

### Total Units: 9.0

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

### Business: Management Level II (L0586), Level III (T0526)

## Business: Retail Management - Level I
## Business Division Certificate E0500
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.

### Required Courses:
- BUS 25 Business Communications 3.0
- CIS 15 Microcomputer Applications 3.5
- FASH 62 Retail Buying and Merchandising 3.0
- BUS 50 Retail Store Management 3.0

### Total Units: 9.5

### 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 (L0591), Level III (T0521)

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

### Required Courses:
- BUSM 20 Principles of Business 3.0
- BUSM 66 Small Business Management 3.0
- BUSM 36 Principles of Marketing 3.0

### Total Units: 9.0

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

### Business: Small Business Management Level II (L0588), Level III (T0590)

## Children’s Program Certificate: General - Level I
## Business Division Certificate E1326
The Children’s Program Certificate: General - Level I is designed for the student who desires general knowledge about the foundations of child development and who has an interest in teaching young children. This certificate meets the Title 22 education requirements for a fully qualified teacher. In Title 5 programs, this certificate meets the educational requirements for an Assistant/Aide position. This certificate includes the identified core courses for the Associate Teacher Child Development Permit. Fifty (50) days of experience is required to complete the permit requirements.

### Required Courses:
- CHLD 1 Child, Family, School and Community 3.0
- CHLD 5 Principles and Practices in Child Development Programs 3.0
- CHLD 6 Survey of Child Development Curriculum 3.0
- CHLD 11 Child and Adolescent Development 3.0

### Total Units: 12.0

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

### Business: Small Business Management Level II (L1328), Level III (L1327)

## CIS Professional Certificate in Excel and Access
## Business Division Certificate E0715
This certificate in Excel and Access is designed to prepare students for working with Microsoft Excel and Access in a business environment. The certificate offers a balanced set of classes that prepares students for using advanced features of both Excel and Access needed by industry. Emphasis is placed on Excel functions as well as Access’ relational database techniques. Within Excel, students create a variety of workbooks, utilizing charts, PivotTables, various functions, macros, lists and tables. With Access, students create a variety of objects, programming and developing a graphical user interface. Students will demonstrate the ability to create business-oriented applications using both the C++ and Visual C++ programming languages; demonstrate effective object-oriented design techniques; write effective program documentation, and demonstrate program troubleshooting skills. Opportunities available after the completion of this certificate include programming for standalone applications, games and databases.

### Required Courses:
- CSP 10 Principles of Object-Oriented Design 2.0
- CSP 31 Programming in C++ 3.0
- CSP 31L Programming in C++ Laboratory 0.5
- CSP 34 Advanced C++ Programming 3.0
- CSP 34L Advanced C++ Programming Laboratory 0.5

### PLUS
- CSD 11 Database Management - Microsoft Access 3.0
- CSD 11L Database Management - Microsoft Access Lab
- CSD 21 Database Management - Microsoft SQL Server 3.0
- CSD 21L Database Management - Microsoft SQL Server Laboratory 0.5
- CSD 31 Database Management - Oracle 3.0
- CSD 31L Database Management - Oracle Laboratory 0.5

### Total Units: 12.5

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including tables, queries, forms, reports and macros, as well as VBA programming. In the VBA for Excel and Access, VBA is used in both Excel and Access to program advanced functionality that may be needed within these applications. Much attention is paid to design principles, including normalization, securing databases, and other current topics in the database field. Students will demonstrate understanding of the topics via projects using various real-world workbooks and databases.

Opportunities available after the completion of this certificate include, but are not limited to, administrative aides, database administrators, designers and developers, and database systems analysts. In addition, courses help prepare students to take the Microsoft MOS certification exam in Excel and Access.

Required Courses:
- CISB 21  Microsoft Excel  3.0
- CISD 11  Database Management  3.0
- CISD 11L  Database Management  0.5
- CISD 14  VBA for Excel and Access  3.0
- CISD 14L  VBA for Excel and Access Lab  0.5
- CISD 40  Database Design  3.0

Total Units  13.0

CIS Professional Certificate in Java Programming
Business Division Certificate E0700
The Java programming certificate is designed to prepare students for a career in computer programming. The certificate offers a balanced set of classes that provides students with client, server, and database programming skills required by industry. Emphasis is placed on object-oriented programming applications Web-based applets configuring an Apache Tomcat server, implementing JavaServer Pages, JavaBeans, and NetBeans for reusable software components. Students will demonstrate the ability to design and implement a Java application that will contain the front end user interface and back end database. Opportunities available after the completion of this certificate include programming for systems, mobile devices, device drivers and software engineering.

Required Courses:
- CISP 10  Principles of Object-Oriented Design  2.0
- CISP 21  Programming in Java  3.0
- CISP 21L  Programming in Java Laboratory  0.5
- CISP 24L  Advanced Java Programming  3.0
- CISD 11  Database Management  3.0
- CISD 11L  Database Management - Microsoft Access Lab  0.5
- CISD 11L  Database Management - Oracle Lab  0.5
- CISD 21  Database Management  3.0
- CISD 21L  Database Management - Microsoft SQL Server Lab  0.5
- CISD 21L  Database Management - Microsoft SQL Server Laboratory  0.5
- CISD 31  Database Management - Oracle Laboratory  3.0
- CISD 31L  Database Management - Oracle Laboratory  0.5

Total Units  12.5

CIS Professional Certificate in Network Security
Business Division Certificate E0721
The CIS Professional Certificate in Network Security program is designed to prepare students for a career in the computer network security industry. The certificate offers a balanced set of classes that prepare students to design, implement, manage and secure the heterogeneous corporate network. The security management courses emphasize firewall security appliances, network protocol analysis, Linux network, Snort intrusion detection, intrusion prevention, and vulnerability management. Students will acquire the skills to utilize network protocol analyzers, to troubleshoot network problems, deploy intrusion prevention systems, configure firewall security appliances and Virtual Private Network (VPN), and assess network vulnerabilities and implement countermeasures. Individual courses will help students prepare for industry certification exams such as Certify Ethical Hacker (CEH), Cisco Firewall Specialist, and Cisco IPS Specialist. Opportunities available upon completion of the certificate program include Network Security Analyst, Junior Network Security Engineer, Network Vulnerability Management, and Network Security Architect.

Required Courses:
- CISS 21L  Network Vulnerabilities and Countermeasures  3.0
- CISS 21L  Network Vulnerabilities and Countermeasures Lab  0.5
- CISS 23  Network Analysis, Intrusion Detection/Prevention Systems  3.0
- CISS 23L  Network Analysis, Intrusion Detection/Prevention Systems Lab  0.5
- CISS 25  Network Security and Firewalls  3.0
- CISS 31  Secure Web Servers  3.0
- CISS 31L  Secure Web Servers Laboratory  0.5

Total Units  10.5

CIS Professional Certificate in Network Security
Business Division Certificate E0716
The CIS Professional Certificate in Networking program is designed to prepare students for a career in the computer networking industry. The certificate offers a balanced set of classes that prepare students to design, implement, and manage the heterogeneous corporate network. The network administration courses emphasize network operating systems, network infrastructure and data communications. Students will acquire the skills to install and administer a Windows network, Virtualization, Active Directory, group policy, file system security, DNS, DHCP, Linux Networking, Cisco routers, switches, network infrastructure, access control list, Virtual LAN (VLAN) and VLAN routing. Individual courses will help students prepare for related industry certification exams such as Network+, Microsoft MCITP, Cisco CCNA and Red Hat RHCSA. Opportunities available upon completion of this certificate include entry-level and mid-management positions in Network Administration.

Required Courses:
- CISN 11  Telecommunications/Networking  3.0
- CISN 11L  Telecommunications/Networking Lab  0.5
- CISN 24  Window Server Network  3.0
- CISN 24L  Window Server Network  0.5
- CISN 34  Linux Networking and Security  3.0
- CISN 34L  Linux Networking and Security  0.5
- CISN 51  Cisco CCNA Networking and Routing  3.0
- CISN 51L  Cisco CCNA Networking and Routing  0.5

Total Units  14.0
**CIS Professional Certificate in Object-Oriented Design & Programming**

**Business Division Certificate E0723**

The CIS Professional Certificate in Object-Oriented Design and Programming prepares students for a career in computer programming. The certificate offers a balanced set of classes that provides students with the skills to design and develop business applications using the Unified Modeling Language (UML) and an object-oriented programming language. Students will demonstrate the ability to design and implement business environment applications that will contain the front end user interface and back end database. Students in this program select one of the following three programming language concentrations: Visual Basic.NET, Java or C++. Career opportunities available after the completion of this certificate include SQL Server report writer, SQL Server developer and software engineer.

**Required Courses (2 units):**
- CISP 10 Principles of Object-Oriented Design 2.0
- Plus one of the following three programming tracks (7 units):
  - **Visual Basic.NET:**
    - CISP 11 Programming in Visual Basic 3.0
    - CISP 11L Programming in Visual Basic Laboratory 0.5
    - CISP 14 Advanced Visual Basic .NET 3.0
    - CISP 14L Advanced Visual Basic.NET Laboratory 0.5
  - **Java:**
    - CISP 21 Programming in Java 3.0
    - CISP 21L Programming in Java Laboratory 0.5
    - CISP 24 Advanced Java Programming 3.0
    - CISP 24L Advanced Java Laboratory 0.5
  - **C++:**
    - CISP 31 Programming in C++ 3.0
    - CISP 31L Programming in C++ Laboratory 0.5
    - CISP 34 Advanced C++ Programming 3.0
    - CISP 34L Advanced C++ Programming Laboratory 0.5

**Total Units 9.0**

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**CIS Professional Certificate in SQL**

**Business Division Certificate E0730**

The SQL Server certificate is designed to prepare students for a career in database administration using SQL Server. The certificate offers a balanced set of classes that provides students with skills in database design, database retrieval and database programming. Emphasis is placed on building databases; retrieving data; creating and maintaining database objects; writing stored procedures, functions and triggers for reusable software components. Students will demonstrate the ability to view and update databases and develop programs to automate database functions. Opportunities available after the completion of this certificate include SQL Server report writer, SQL Server developer and software engineer.

**Required Courses:**
- CISP 21 Database Management 3.0
  - Microsoft SQL Server 0.5
- CISP 31 Database Management - Oracle 3.0
- CISP 31L Database Management - Oracle Laboratory 0.5
- CISP 40 Database Design 3.0

**Total Units 10.0**

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**CIS Professional Certificate in Telecommunications**

**Business Division Certificate E0718**

The CIS Professional Certificate in Telecommunications program is designed to prepare students for a career in the computer networking industry. The certificate offers a balanced set of classes that prepare students to design, implement and manage the heterogeneous corporate network. The network administration courses emphasize network operating systems, network infrastructure and data communications. Students will acquire the skills to install and administer a Windows network, Virtualization, Active Directory, group policy, file system security, DNS, DHCP, Cisco routers, switches, network infrastructure, access control list, Virtual LAN (VLAN) and VLAN routing. Individual courses will assist students in preparing for industry certification exams such as Network+, Microsoft MCITP and Cisco CCNA. Opportunities available upon completion of the certificate program include entry-level and mid-management positions in Network Administration.

**Required Courses:**
- CISN 11 Telecommunications/Networking 3.0
- CISN 11L Telecommunications/Networking Laboratory 0.5
- CISN 24 Window Server Network 3.0
  - and Security Administration 0.5
- CISN 24L Window Server Network Laboratory 0.5
- CISN 51 Cisco CCNA Networking and Routing 3.0
- CISN 51L Cisco CCNA Networking and Routing Laboratory 0.5

**Total Units 10.5**

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**CIS Professional Certificate in Visual Basic Programming**

**Business Division Certificate E0719**

The CIS Professional Certificate in Visual Basic Programming is designed to prepare students for a career in computer programming. The certificate offers a balanced set of classes that provides students with client, server and database programming skills required by industry. Emphasis is placed on object-oriented programming applications, web based applications and implementing ASP.NET, ADO.NET and .NET Framework for reusable software components. Students will demonstrate the ability to design and implement a Visual Basic application that contains the client interface, the server implementation and the database. Opportunities available after the completion of this certificate include web programming for systems, mobile applications, integration of systems and web applications.

**Required Courses:**
- CISP 10 Principles of Object-Oriented Design 2.0
- CISP 11 Programming in Visual Basic 3.0
  - Advanced Visual Basic .NET 3.0
- CISP 11L Programming in Visual Basic Laboratory 0.5
- CISP 14L Advanced Visual Basic.NET Laboratory 0.5
- CISW 24L Secure Server Side Web Programming 0.5
- CISW 24 Secure Server Side Web Programming 3.0
- CISW 24L Secure Server Side Web Programming Laboratory 0.5

**Total Units 7.0**

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**CIS Professional Certificate in Web Programming**

**Business Division Certificate E0713**

The CIS Certificate in Web Programming provides students with the programming skills to create effective web pages and web sites. The certificate offers a balanced set of classes that prepares students to design, debug and implement both client-side and server-side web programs. Emphasis is placed on acquiring programming skills in various web programming, scripting or markup languages such as JavaScript, HTML, DHTML, XHTML, XML, CSS, ASP, JSP, SQL and Perl. Students will also learn to configure and install an Apache web server in a Linux system to access a MySQL database using PHP programs. Opportunities available after the completion of this certificate include web programming or web and database server administration.

**Required Courses:**
- CISW 24 Secure Server Side Web Programming 3.0
- CISW 24L Secure Server Side Web Programming Laboratory 0.5
- CISW 31 Secure Web Servers 3.0
- CISW 31L Secure Web Servers Laboratory 0.5

**Total Units 12.5**

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**Programs of Study Leading to a Certificate**
### CIS Professional Certificate in Windows Operating System Administration

**Business Division Certificate E0720**

The CIS Professional Certificate in Windows Operating System Administration is designed for returning CIS professionals with several years of experience or current students who have completed several CIS courses. This certificate will prepare students for technical support jobs for companies using Windows operating systems. The certificate will provide students the skills to install, manage/administer and troubleshoot Microsoft Windows workstations and Microsoft server operating systems. The courses in this certificate cover the major topics of industry standard certification exams. Opportunities available upon completion of the certificate program include entry-level and mid-level help desk and Windows Administrative positions.

**Required Courses:**

- CISN 21  Windows Operating System  3.0
- CISN 24  Window Server Network  3.0
- and Security Administration
- CISN 24L  Window Server Network  0.5
- and Security Administration Lab

**Total Units**  6.5

### Consumer Relations

**Business Division Certificate B0326**

This program provides semi-professional training for those who seek immediate Consumer Relations employment in non-profit agencies, government, education, or business such as utilities, telecommunications, and finance. Positions include, but are not limited to: consumer affairs representatives, client related government jobs, and community advocates.

**Required Courses:**

- FCS 41  Life Management  3.0
- FCS 80  Personal Financial Planning  3.0
- or
- BUSA 71  Personal Financial Planning  3.0
- FCS 51  Consumer Skills, Issues, and Strategies  3.0
- BUSO 25  Business Communications  3.0
- BUSO 26  Oral Communications for Business  3.0

**Total Units**  15.0

### Culinary Arts

**Business Division Certificate E1334**

The program prepares students for entry level career opportunities in restaurants, catering, hotels, theme parks and other food service businesses. Students gain practical training in the use of commercial equipment and acquire the skills necessary to be successful in the field of culinary arts such as: knife skills, food production, presentation, menu development, portion control, and nutrition. Students who successfully complete the requirements for this certificate will also earn the Food Protection Manager Certification from the National Restaurant Association upon passing the ServSafe Exam.

**Required Courses:**

- FCS 41  Food Safety and Sanitation  1.5
- HRM 54  Basic Cooking Techniques  3.0
- HRM 81  Garde Manger  3.0
- HRM 82  Baking and Pastry  3.0
- HRM 83  International Cuisines  3.0

**Total Units**  14.0

### Domestic Violence Certification

**Technology and Health Division Certificate E0066**


**Required Courses:**

- AD 4  Issues in Domestic Violence  3.0

**Total Units**  3.0

### Electronic Assembly and Fabrication

**Technology and Health Division Certificate E0929**

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

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

**Required Courses:**

- ELEC 50A  Electronic Circuits - Direct Current (DC)  4.0
- ELEC 50B  Electronic Circuits (AC)  4.0
- or
- EST 50  Electrical Fundamentals  4.0
- for Cable Installations
- ELEC 61  Electronic Assembly and Fabrication  3.0
- ELEC 62  Advanced Surface Mount Assembly and Rework  2.0

**Total Units**  13.0

### Programs of Study Leading to a Certificate

#### Consumer Relations

- **Business Division**
  - **Certificate B0326**

#### Culinary Arts

- **Business Division**
  - **Certificate E1334**

#### Domestic Violence Certification

- **Technology and Health Division**
  - **Certificate E0066**

#### Electronic Assembly and Fabrication

- **Technology and Health Division**
  - **Certificate E0929**
### Programs of Study Leading to a Certificate

#### Electronic Systems Technology - Level I

**Technology and Health Division**

**Certificate E0990**

This is a fast-track certificate program within the fields of information and electronic technology. These fields are growing at rapid rates. The program provides job skills in the areas of low voltage cable and wire installations used in the telephone industry, computer networks (business and home), home theater, home automation, and home security systems (integrated home systems). Typical job titles in these areas are data or cable technician, low-voltage wiring technician, home theatre installer, consumer electronics service technician and security system installer. The program prepares the student for the California State Contractors C-7 Low Voltage Systems license. The program encompasses a total of 27-29.5 units comprising two levels of certification. The Level I certification (15-15.5 units) develops skills in electrical fundamentals, fabrication techniques, cabling and wiring standards for voice, video and data, and basic computer skills in word processing, spreadsheets, database and the Internet. Level II certification (12-14 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. A course on preparing for the C-7 license or troubleshooting digital TV with LCD, plasma, and DLP video displays is included.

**Required Courses:**

- **ELEC 11** Technical Applications in Microcomputers 3.0
- **CISB 15** Microcomputer Applications 3.5
- **EST 50** Electrical Fundamentals 4.0
- **EST 52** Fabrication Techniques 4.0
- **EST 54** Cabling and Wiring Standards 4.0

**Total Units** 15.0 - 15.5

### Emergency Medical Technician

**EMT 90**

**Technology and Health Division**

**Certificate E1212**

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

**Required Courses:**

- **EMT 90** Emergency Medical Technician 8.0
- **EMT 90-A** Introduction to EMS System 2.0

**Total Units** 10.0

**Special Information:**

To remain in the program, student must maintain a grade of “C” or better in the course. EMT 90-A is a mandatory pre-requisite to EMT 90.

Completion of the required course, which includes both written and practical qualifying examinations, will award the student an EMT Course Completion Certificate. Students are then eligible for certification by taking and passing the National Registry EMT certifying exam. This course is a prerequisite for the Paramedic Program and is required by most fire departments before the student may be hired as a firefighter.

**Application Requirements and Selection Procedures**

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

**Selection Procedure:**

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

**Physical Demands:**

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

**Sensory Demands:**

- Color vision: ability to distinguish and identify colors (may be corrected with adaptive device)
- Distance vision: ability to see clearly 20 feet or more
- Depth perception: ability to judge distance and space relationship
- 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 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 decisions/actions related to end of life issues
- Exposure to products containing latex

**English Language Skills:**

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

**Special Information:**

To remain in the program, student must maintain a grade of “C” or better in the course.

Completion of the required course, which includes both written and practical qualifying examinations, will award the student an EMT Course Completion Certificate. Students are then eligible for certification by taking and passing the National Registry EMT certifying exam. This course is a prerequisite for the Paramedic Program and is required by most fire departments before the student may be hired as a firefighter.

**Application Requirements and Selection Procedures**

- **Application Requirements:**
  - Applicant must be 18 years of age upon entrance into the course.
  - High school graduate or equivalent.
  - File a College application and be accepted as a student at Mt. San Antonio College.
  - A physical examination including drug screen, possession of certain immunizations, current certification in CPR, and a criminal background check are required of all students prior to entrance into the program.

**Emergency Medical Technician**

**EMT 95**

**Technology and Health Division**

**Certificate E0367**

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

**Required Courses:**

- **EMT 95** EMT for Fire Technology 8.0

**Total Units** 8.0
Selection Procedure:
The course is open to all students who meet the application requirements. All applicants are required to meet the Essential Functions in the Emergency Medical Technician Program.

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

Sensory Demands:
- Color vision: ability to distinguish and identify colors (may be corrected with adaptive device)
- Depth perception: ability to judge distance and space relationship
- 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 odorous chemicals and specimens
- Subject to hazards of flammable, explosive gases
- Subject to burns and cuts
- Contact with patients having different religious, culture, ethnicity, race, sexual orientation, psychological and physical disabilities, and under a wide variety of circumstances
- Handle emergency or crisis situations
- Subject to many interruptions
- Requires decisions/actions related to end of life issues
- Exposure to products containing latex

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

Fashion Computer Aided Design
Business Division
Certificate E1329
The Fashion Computer Aided Design Certificate consists of apparel design courses that offer students a basic understanding of clothing construction, patternmaking, technical design, and patternmaking software. In addition, students become proficient in creating technical drawings and retail planograms using CAD software. Students prepare for careers in apparel manufacturing, production, technical design, and visual merchandising.

Required Courses:
- FASH 15 Aesthetic Design in Fashion 3.0
- FASH 23 Patternmaking II 3.0
- FASH 24 Fashion Patternmaking by Computer 3.0
- FASH 25 Fashion Computer-Assisted Drawing 3.0
- FASH 66 Visual Merchandising Display 3.0
Total Units 15.0

Fitness Specialist/Personal Trainer
Kinesiology, Athletics and Dance Division
Certificate E0808
The Fitness Specialist/Personal Trainer Certificate prepares students for careers as personal trainers, health/fitness professionals in corporate fitness facilities, wellness centers and public/private health clubs. The Fitness Specialist/Personal Trainer Certificate curriculum is designed to prepare students who wish to take exams offered by the American Council on Exercise (ACE), the American College of Sports Medicine (ACSM) and other nationally recognized organizations. Technical skills necessary for implementation of a safe, effective and motivational physical fitness program are presented.

Required Courses:
- NF 10 Nutrition for Personal Health and Wellness 3.0
- KIN 15 Administration of Fitness Programs 2.0
- KIN 24 Applied Kinesiology 2.0
- KIN 38 Physiology of Exercise for Fitness 3.0
- KIN 39 Techniques of Fitness Testing 2.0
- KIN 40 Techniques of Teaching 2.0
- KIN 41 Techniques of Teaching Weight Training 2.0
- KIN 85 Fitness Specialist Work Experience 1.0
Total Units 17.0

Recommended Electives:
- DNCE 39A Alignment and Correctives I 0.5

Gallery Design/Operation and Art Profession
Arts Division
Certificate E1020
This certificate is designed to provide students with the necessary theoretical and practical knowledge and skills to display an aesthetically and conceptually effective art exhibition. Students will acquire the knowledge of various/diverse artistic media and develop a career-oriented artistic perspective.

Required Courses:
- ARTG 20 Art, Artists and Society 3.0
- ARTG 21A Introduction to Exhibition Production 3.0
- ARTG 21B Intermediate Exhibition Production 3.0
The following course to be taken twice - once as an off-campus experience and once as an on-campus experience (2 Units)
- ARTG 22A Exhibition Design and Art Gallery Operation Work Experience 1.0
- ARTC 100 Graphic Design I 3.0
PLUS select one (1) course from:
- AHIS 5 History of Western Art: Renaissance Through Modern 3.0
- AHIS 6 History of Modern Art 3.0
Total Units 17.0

Graphic Design Level I
Arts Division
Certificate E0341
This multi-level certificate program is designed to prepare students for careers in the Graphic Design field of Communication Art. Students are given creative design and technology skills necessary to develop successful graphic design for print, web, and other media. This Graphic Design Level I certificate offers the essential skills required for entry-level employment opportunities as a production layout artist, interface or content designer, publication artist, print advertising artist, or desktop publisher. The production software reflects industry standards and course content is driven by industry needs.

Required Courses:
- ARTC 100 Graphic Design I 3.0

Horse Ranch Management - Level I
Natural Sciences Division
Certificate E0361
This certificate program is designed to give students basic skills for employment on horse ranches and in agriculture sales and services. All courses are applicable for degree requirements in Horse Ranch Management and Livestock Management.

Required Courses:
- AGAN 2 Animal Nutrition 3.0
- AGLI 16 Horse Production and Management 4.0
- AGLI 18 Horse Ranch Management 4.0
Total Units 11.0

Hospitality: Catering
Business Division
Certificate E0344
The Catering Certificate prepares students for entry-level positions in catering companies, banquet facilities, hotels, convention centers, fairgrounds and event planning companies. Students gain practical and management training in: food safety and sanitation, food production, menu development, client meeting techniques, contract creation and banquet event order development. Students who successfully complete the requirements for this certificate will also earn the Food Protection Manager Certification from the National Restaurant Association upon passing the ServSafe Exam.

Required Courses:
- HRM 52 Food Safety and Sanitation 1.5
- HRM 54 Basic Cooking Techniques 3.0
- HRM 61 Menu Planning 3.0
- HRM 62 Catering 3.0
Total Units 10.5
Programs of Study Leading to a Certificate

Hospitality: Food Services
Business Division
Certificate E1332
The Hospitality: Food Services - Level I Certificate prepares students for entry-level positions in the hospitality industry. Students receive training in dining room service management and lodging operations. Students who successfully complete the requirements for this certificate will also earn the Food Protection Manager Certification from the National Restaurant Association upon passing the ServSafe Exam.

Required Courses:
- HRM 51 Introduction to Hospitality 3.0
- HRM 52 Food Safety and Sanitation 1.5
- HRM 53 Dining Room Service Management 3.0
- HRM 54 Basic Cooking Techniques 3.0
- HRM 61 Menu Planning 3.0
- HRM 91 Hospitality Work Experience 1.0

Total Units 17.5

Hospitality: Restaurant Management - Level II
Business Division
Certificate E0343
The Hospitality: Restaurant Management - Level II Certificate prepares students for mid-level or Manager-In-Training positions in restaurants, catering, hotel food and beverage outlets, theme parks and other food service businesses. Students gain practical and management training in: food safety and sanitation, food production, dining room service management, menu development and cost volume analysis. Students who successfully complete the requirements for this certificate will award the Food Protection Manager Certification from the National Restaurant Association.

Required Courses:
- HRM 51 Introduction to Hospitality 3.0
- HRM 52 Food Safety and Sanitation 1.5
- HRM 53 Dining Room Service Management 3.0
- HRM 54 Basic Cooking Techniques 3.0
- HRM 57 Hospitality Cost Control 3.0
- HRM 61 Menu Planning 3.0
- HRM 91 Hospitality Work Experience 1.0

Total Units 17.5

Information and Operating Systems Security
Business Division
Certificate E0731
The Information and Operating Systems Security Certificate provides students the skills to analyze security risks to a computer network and select and deploy countermeasures to reduce the network's exposure to such risks. The certificate offers a balanced set of classes that provides students the skills to identify network threats and protect the system against them. Students will demonstrate the ability to create a secure computer system and utilize security tools to protect it from security threats. Although this certificate, by itself, may not qualify a student for a career in network security, it would ideally complement other network security certificates and/or degrees within the CIS program.

Required Courses:
- CISS 11 Practical Computer Security 2.0
- CISS 13 Principles of Information Systems Security 4.0
- CISS 15 Operating Systems Security 3.0

Total Units 9.0

Interior Design: Level I
Business Division
Certificate E0364
Interior Design: Level I Certificate is designed to prepare students with a broad overview and solid foundation in the area of interior design and related fields. This certificate may lead to new opportunities and provide students with the knowledge upon which to build a career.

Required Courses:
- ID 10 Introduction to Interior Design 2.0
- ID 10L Introduction to Interior Design Laboratory 1.0
- ID 12 Materials and Products for Interior Design 3.0
- ID 14 History of Furniture and Decorative Arts 3.0

Total Units 9.0

Livestock Production Management
Natural Sciences Division
Certificate E0363
This certificate program is designed to give students basic skills in livestock production management for employment opportunities on farms, ranches, and agriculture sales and services. All courses are applicable for degree requirements.

Required Courses:
- AGLI 14 Swine Production 3.0
- AGLI 17 Sheep Production 3.0
- AGLI 30 Beef Production 3.0
- AGLI 34 Livestock Judging and Selection 2.0
- AGLI 97 Artificial Insemination of Livestock 2.0

Total Units 13.0
LVN 30-Unit Option
- Career Mobility Track

Technology and Health Division
Certificate E1202

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

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

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

Non-course requirements:
1. An overall grade point average of 2.5 for the Human Anatomy, Human Physiology, and Microbiology prerequisite courses with no grade less than a “C” for each course and no more than one repetition of any one of these courses.
2. A cumulative grade point average (GPA) of 2.5 for all college coursework completed.
3. Eligibility for Math 51
4. High school graduation or GED or academic degree from an accredited college/university in the United States.
5. Possess a California Licensed Vocational Nurse license.

<table>
<thead>
<tr>
<th>Required Courses:</th>
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<tbody>
<tr>
<td>NURS 5, Psychiatric Nursing</td>
</tr>
<tr>
<td>NURS 8, Medical-Surgical Nursing: Circulation and Oxygenation</td>
</tr>
<tr>
<td>NURS 9, Leadership in Nursing</td>
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<tr>
<td>NURS 10, Medical-Surgical Nursing</td>
</tr>
<tr>
<td>NURS 11, Preceptorship in Nursing</td>
</tr>
<tr>
<td><strong>Total Units</strong></td>
</tr>
</tbody>
</table>

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

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

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

a) Once a student has completed all course prerequisites, the student will then apply to the Nursing Department on an appointment basis.
b) Students who have completed coursework at other colleges must bring the following information to their eligibility appointment:
- Official transcripts of all college work completed at all colleges;
- If the prerequisite courses were completed at another college, a course description and a copy of the course syllabus;
- Students completing college coursework outside of the United States will need to have their transcripts evaluated by an approved international transcript evaluation agency and must bring the final evaluation to their appointment (students may be able to obtain a list of agencies from the Admissions Office).
- Due to specific college deadlines for International Student applications, please inform the Counselor/ Educational Advisor that this applies to you.

c) All students will need to bring official proof of high school graduation, GED, or college graduation from an accredited institution in the United States. Students should 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:** (may be corrected with adaptive device)
- Color vision: ability to distinguish and identify colors
- Distance vision: ability to see clearly 20 feet or more
- Depth perception: ability to judge distance and space relationships
- Near vision: ability to see clearly 20 inches or less
- Hearing: able to recognize a full range of tones

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

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

**Machine Operator**

Technology and Health Division
Certificate E0956

This certificate provides a foundation of basic skills for employment in a variety of entry-level manufacturing positions.

<table>
<thead>
<tr>
<th>Required Courses:</th>
</tr>
</thead>
<tbody>
<tr>
<td>MFG 10, Mathematics &amp; Blueprint Reading</td>
</tr>
<tr>
<td>MFG 11, Manufacturing Processes I</td>
</tr>
<tr>
<td>MFG 12, Manufacturing Processes II</td>
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<tr>
<td>MFG 38, MasterCAM I</td>
</tr>
<tr>
<td>MFG 85, Manual Computerized Numerical Control (CNC) Programming</td>
</tr>
<tr>
<td><strong>Total Units</strong></td>
</tr>
</tbody>
</table>
### Programs of Study Leading to a Certificate

#### MasterCAM

**Technology and Health Division**  
**Certificate E0927**

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

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

**Total Unit**  8.0

#### Microcomputer Productivity Software

**Business Division**  
**Certificate E0336**

The Microcomputer Productivity Software certificate is designed to prepare students for careers that require extensive knowledge of business-related productivity software. The certificate offers a balanced set of classes that enables students to maintain and troubleshoot a Windows operating system, learn advanced features of Excel, Access and PowerPoint software; and create commercial Web sites. Emphasis is placed on customizing, optimizing and securing a Windows-based computer; developing spreadsheet pivot tables and macros; using Access to create and maintain database tables, forms, reports and queries; creating and manipulating PowerPoint slide shows with multimedia content; and using HTML and web page editors to create and publish Web sites. Students will demonstrate the ability to use software to store and retrieve data, solve business problems and create commercial Web sites. Opportunities available after the completion of this certificate include systems analyst, administrative assistant and office manager.

**Required Courses:**
- CISB 15 Microcomputer Applications  3.5  
- CISB 21 Microsoft Excel  3.0  
- CISB 51 Microsoft PowerPoint  3.0

**Total Units**  3.0

#### Nutrition

**Business Division**  
**Certificate E0353**

This certificate is designed to give students basic knowledge and skills in nutrition science, food science, food preparation, and food safety and sanitation. These core courses provide the necessary skills for those seeking entry-level employment as nutrition assistants or dietary service workers in hospital or school food service or with community agencies such as The Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) and Head Start.

**Required Courses:**
- HRM 52 Food Safety and Sanitation  1.5  
- NF 1 Introduction to Nutrition as a Career  1.5  
- NF 20 Principles of Foods  3.0  
- NF 25 Essentials of Nutrition  3.0  
- or  
- NF 25H Essentials of Nutrition - Honors  3.0

**Total Units**  9.0

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

**Kinesiology, Athletics and Dance Division**  
**Certificate E0315**

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

**Required Courses:**
- CISP 11 Programming in Visual Basic  3.0  
- CISP 11L Programming in Visual Basic - Laboratory  3.0

**Total Units**  6.0

#### Programming In Visual Basic

**Business Division**  
**Certificate E0335**

The Programming in Visual Basic Certificate is designed to prepare students for a career in computer programming. The certificate offers a balanced set of classes that provides students the client, server and database programming skills required by industry. Emphasis is placed on object-oriented programming applications, web based applications, and implementing ASP.NET, ADO.NET and .NET Framework for reusable software components. Students will demonstrate the ability to design and implement a Visual Basic application that contains the client interface, the server implementation and the database. Opportunities available after the completion of this certificate include programming for systems, mobile applications, integration of systems and web applications.

**Required Courses:**
- CISP 11 Programming in Visual Basic  3.0  
- CISP 11L Programming in Visual Basic - Laboratory  3.0

**Total Units**  6.0

#### Radio Broadcasting: On-Air - Level I

**Arts Division**  
**Certificate E0317**

This multi-level certificate program prepares students to enter the field of on-air radio broadcasting and related areas. The Level I Radio Broadcasting On-Air Certificate provides an overview of the fundamental skills essential to the field as well as the business and legal aspects of the industry.

**Required Courses:**
- R-TV 01 Introduction to Electronic Media  3.0  
- R-TV 02 On-Air Personality Development  3.0  
- R-TV 05 Radio-TV Newswriting  3.0  
- R-TV 10 Radio Programming and Producer Techniques  3.0  
- R-TV 11A Beginning Radio Production  3.0  
- R-TV 15 Broadcast Law and Business Practices  3.0

**Total Units**  15.0
Real Estate Sales Certificate
Business Division
Certificate E0342
Prior to taking the California Real Estate Salespersons Examination, an applicant must complete three (3) college level courses specified by the California Department of Real Estate. Two of these classes are mandated: Real Estate Principles (BUSR 50) and Real Estate Practice (BUSR 52). The third class may be any real estate or real estate related course specified by the California Department of Real Estate. The Real Estate Sales Certificate includes these three classes for a total of 9 units needed to apply for the California Real Estate Salespersons’ Examination.

Required Courses:
- BUSR 50 Real Estate Principles 3.0
- BUSR 52 Real Estate Practice 3.0
- BUSR 76 Mortgage Loan Brokering and Lending 3.0
- BUSR 81 Appraisal: Principles and Procedures 3.5
- BUSR 90 Real Estate Property Management 3.0
- BUSR 60 Real Estate Investment Planning 3.0
- BUSR 62 Mortgage Loan Brokering and Lending 3.0
- BUSR 76 Escrow Procedures I 3.0
- BUSR 81 Appraisal: Principles and Procedures 3.5
- BUSR 90 Real Estate Property Management 3.0
- BUSR 60 Real Estate Investment Planning 3.0
- BUSR 62 Mortgage Loan Brokering and Lending 3.0
- BUSR 76 Escrow Procedures I 3.0

Total Units 9.0 - 11.0

Welding
Technology and Health Division
Certificate E0919
This program is designed to prepare the student for employment in the broad field of welding and (1) leads to occupations in manufacturing and repair; and (2) helps prepare the student for positions in supervision.

Courses in the welding curriculum prepare students for welding certificates. The College is a testing agency for the City of Los Angeles, and is authorized to administer the performance test for the Structural Welding certificate. There is a $50 charge for students and $60 for nonstudents 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.

Required Courses:
- WELD 40 Introduction to Welding 2.0
- WELD 70A Beginning Arc Welding 3.0
- WELD 70B Intermediate Arc Welding 3.0

Total Units 8.0

Recommended Electives:
- WELD 60 Print Reading and Computations for Welders 3.0

Note: Any higher level welding courses may be substituted for WELD 70A.

Accounting
Business Division
Certificate T0502
The Accounting Certificate provides basic accounting skills combined with in-depth training in a variety of accounting concepts, preparing the student for entry-level positions and/or professional advancement in a wide selection of accounting jobs. These jobs include general accounting, cost accounting, payroll, inventory management, asset management, accounts receivable, accounts payable, budgets and forecast, financial analysis, etc.

Required Courses:
- BUSA 8 Principles of Accounting - Financial 5.0
- BUSA 21 Cost Accounting 4.5
- BUSA 58 Federal Income Tax Law 3.0
- BUSA 52 Intermediate Accounting 3.0
- BUSA 21 Cost Accounting 4.5
- BUSA 76 Using Microcomputers in Financial Accounting 1.0
- BUSA 7 Principles of Accounting - Financial 5.0
- BUSA 8 Principles of Accounting - Managerial 5.0
- BUSA 58 Federal Income Tax Law 3.0
- BUSA 52 Intermediate Accounting 3.0
- BUSA 76 Using Microcomputers in Financial Accounting 1.0

Total Units 21.0 - 22.5

Accounting - Financial Planning
Business Division
Certificate L0599
The Accounting - Financial Planning Certificate provides basic accounting skills and knowledge combined with specialized training in financial planning, preparing the student for entry-level positions and/or professional advancement in their current accounting jobs. Students completing this certificate will be able to assist companies within the areas of budget analysis, tax reporting, financial and investment planning and analysis.

Required Courses:
- BUSA 7 Principles of Accounting - Financial 5.0
- BUSA 8 Principles of Accounting - Managerial 5.0
- BUSA 58 Federal Income Tax Law 3.0
- BUSA 76 Using Microcomputers in Financial Accounting 1.0
- BUSA 76 Using Microcomputers in Financial Accounting 1.0

Total Units 18.0 - 20.0

Accounting - Computerized
Business Division
Certificate L0503
The Accounting - Computerized Certificate provides basic accounting skills and knowledge combined with additional training in computer applications common to the accounting industry. This certificate program prepares the student for an entry-level position as an accounting clerk that requires computer skills in areas such as utilization of accounting software, accounts receivable, accounts payable, inventory tracking/reporting, bank reconciliation, expense reporting and account analysis.

Required Courses:
- BUSA 7 Principles of Accounting - Financial 5.0
- BUSA 8 Principles of Accounting - Managerial 5.0
- BUSA 58 Federal Income Tax Law 3.0
- BUSA 76 Using Microcomputers in Financial Accounting 1.0
- BUSA 76 Using Microcomputers in Financial Accounting 1.0

Total Units 18.0
Programs of Study Leading to a Certificate

**Accounting - Managerial**

**Business Division**

**Certificate L0533**

The Accounting - Managerial Certificate provides basic accounting skills and knowledge combined with specialized training in managerial accounting, preparing the student for entry-level positions in accounting and/or professional advancement in their current accounting jobs. Students completing this certificate will be able to perform duties in the areas of cost analysis, variance analysis, budget preparation, expense reporting, account analysis, and preparation of various internal reports to assist management in their decision making.

**Required Courses:**

- BUSO 25 Business Communications 3.0
- CISI 15 Microcomputer Applications 3.5
- CISI 11 Computer Keyboarding 3.0
- CISI 41 Office Management Skills 3.0

**Total Units:** 18.5

**Administrative Assistant - Level III**

**Business Division**

**Certificate T0517**

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

**Required Courses:**

- BUSO 25 Business Communications 3.0
- CISB 31 Microsoft Word 3.0
- PLUS the Level III coursework as follows: (9.0 Units)
  - CISI 21 Microsoft Excel 3.0
  - CISI 51 Microsoft PowerPoint 3.0
  - CISI 61 Desktop Publishing Software 3.0

**Total Units:** 27.5

**Aircraft Powerplant Maintenance Technology - Day**

**Certificate T0982**

Technology and Health Division

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

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

**Required Courses:**

- AIRM 25 Electrical Fundamentals 5.0 for Air Conditioning and Refrigeration
- AIRC 26 Gas Heating Fundamentals 2.0
- AIRC 30 Heat Load Calculations & Design 4.0
- AIRC 31 Commercial Electrical for Air Conditioning and Refrigeration
- AIRC 32A Air Properties and Measurement 1.5
- AIRC 34 Advanced Mechanical Refrigeration 4.0

**Total Units:** 31.5

**Aircraft Powerplant Maintenance Technology - Evening**

**Certificate T0952**

Technology and Health Division

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

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

**Required Courses:**

- AIRM 65A Aircraft Powerplant Maintenance 13.0 Technology

**Total Units:** 41.0
Required Courses:
- AIRM 70A Aircraft Maintenance Electricity and Electronics 3.0
- AIRM 70B Aircraft Maintenance Electricity and Electronics 3.0
- AIRM 71 Aviation Maintenance Science 6.0
- AIRM 72 Aircraft Materials and Processes 1.5
- AIRM 73 Aircraft Welding 1.5
- AIRM 95A Aircraft Powerplant Maintenance Technology 3.0
- AIRM 95B Aircraft Powerplant Maintenance Technology: Reciprocating Engines 3.0
- AIRM 96A Aircraft Powerplant Maintenance Technology: Turbine Engines 3.0
- AIRM 96B Aircraft Powerplant Maintenance Technology: Propellers 3.0
- AIRM 97A Aircraft Powerplant Maintenance Technology: Instrumentation 3.0
- AIRM 97B Aircraft Powerplant Maintenance Technology: Fuel Meter Systems 3.0
- AIRM 98A Aircraft Powerplant Maintenance Technology: Ignition Systems 3.0
- AIRM 98B Aircraft Powerplant Maintenance Technology: Lubricating Systems 3.0
- AIRM 71 Aviation Maintenance Science 6.0
- AIRM 72 Aircraft Materials and Processes 1.5
- AIRM 73 Aircraft Welding 1.5

Total Units 39.0

Recommended Electives:
- AIRM 74 Aircraft Maintenance Technology - Work Experience 2.0
- AIRM 80 Lab Studies in Aircraft Maintenance Technology 0.5
- PHYS 1 Physics 4.0

Airframe Maintenance Technology - Day Certificate T0991

Technology and Health Division

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 or evening 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.

Required Courses:
- AIRM 66A Aircraft Airframe Maintenance Technology 13.0
- AIRM 66B Aircraft Maintenance Technology 13.0
- AIRM 70A Aircraft Maintenance Electricity and Electronics 3.0
- AIRM 70B Aircraft Maintenance Electricity and Electronics 3.0
- AIRM 71 Aviation Maintenance Science 6.0
- AIRM 72 Aircraft Materials and Processes 1.5
- AIRM 73 Aircraft Welding 1.5

Total Units 41.0

Recommended Electives
- AIRM 74 Aircraft Maintenance Technology 2.0
- AIRM 80 Lab Studies in Aircraft Maintenance Technology 0.5
- PHYS 1 Physics 4.0

Airframe Maintenance Technology - Evening Certificate T0981

Technology and Health Division

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 or evening 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.

Required Courses:
- AIRM 70A Aircraft Maintenance Electricity and Electronics 3.0
- AIRM 70B Aircraft Maintenance Electricity and Electronics 3.0
- AIRM 71 Aviation Maintenance Science 6.0
- AIRM 72 Aircraft Materials and Processes 1.5
- AIRM 73 Aircraft Welding 1.5
- AIRM 90A Airframe Maintenance Technology 3.0
- AIRM 90B Airframe Maintenance Technology: Structure and Design 3.0
- AIRM 80 Lab Studies in Aircraft Maintenance Technology 0.5
- PHYS 1 Physics 4.0

Alcohol/Drug Counseling Technology and Health Division Certificate T2101

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

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

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

Required field work courses:
- AD 13 Internship/Seminar 4.0
- AD 14 Advanced Internship/Seminar 4.0

Alcohol/Drug Counseling Technology and Health Division Certificate T2101

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

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

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

Required field work courses:
- AD 13 Internship/Seminar 4.0
- AD 14 Advanced Internship/Seminar 4.0
Select two (2) courses from:

CHLD 10  Child Growth and Lifespan Development  3.0

CHLD 10H  Child Growth and Lifespan Development - Honors  3.0

PSYC 1A  Introduction to Psychology  3.0

PSYC 1AH  Introduction to Psychology – Honors  3.0

PSYC 19  Abnormal Psychology  3.0

SOCI 1  Sociology  3.0

SOCI 1H  Sociology – Honors  3.0

SOCI 14  Marriage and the Family  3.0

SOCI 14H  Marriage and the Family - Honors  3.0

SOCI 15  Child Development  3.0

Total Units  41.0

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

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

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

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

Programs of Study Leading to a Certificate

**Animation – 3D and CG Gaming**

**Arts Division**

**Certificate T0302**

The Animation – 3D and CG Gaming Certificate provides training in 3D animation including character modeling, character rigging, lighting, texture, environment and visual effects that lead to creative careers in film, television and the video game industry.

The Animation Program offers an integrated/intersdisciplinary 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.

**Required Courses:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANIM 101A Drawing - Gesture and Figure</td>
<td>3.0</td>
</tr>
<tr>
<td>ANIM 104 Drawing Fundamentals</td>
<td>3.0</td>
</tr>
<tr>
<td>ANIM 108 Principles of Animation</td>
<td>3.0</td>
</tr>
<tr>
<td>ANIM 115 Storyboarding</td>
<td>3.0</td>
</tr>
<tr>
<td>ANIM 116 Character Development</td>
<td>1.5</td>
</tr>
<tr>
<td>ANIM 130 Introduction to 3-D Computer Animation</td>
<td>3.0</td>
</tr>
<tr>
<td>ANIM 131 Introduction to Gaming</td>
<td>3.0</td>
</tr>
<tr>
<td>ANIM 132 Modeling, Texture Mapping</td>
<td>3.0</td>
</tr>
<tr>
<td>ANIM 134 Animation Environment</td>
<td>3.0</td>
</tr>
<tr>
<td>ANIM 145 Advanced 3-D Modeling</td>
<td>3.0</td>
</tr>
<tr>
<td>ANIM 148 Demo-Reel</td>
<td>3.0</td>
</tr>
<tr>
<td>ARTC 100 Graphic Design I</td>
<td>3.0</td>
</tr>
</tbody>
</table>

**Recommended Electives**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANIM 146 Advanced 3-D Animation</td>
<td>3.0</td>
</tr>
<tr>
<td>ANIM 149 3-D Character Rigging</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Total Units  37.5

**Recommended Electives**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANIM 109 Advanced Principles of Animation</td>
<td>3.0</td>
</tr>
<tr>
<td>ANIM 120 Script Development for Animation</td>
<td>3.0</td>
</tr>
</tbody>
</table>

**Animation – Game & Interactive Multimedia Design II**

**Arts Division**

**Certificate L0340**

This multi-level certificate program offers skills needed for creative careers that integrate animation with gaming, video, audio, graphics, and special effects for the Web, broadcast, film, presentation, or mobile content. The Animation – Game & Interactive Multimedia Design Level II certificate provides additional expertise for employment opportunities in areas of game design, digital animation, motion graphics, and special effects.

**Required Courses:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANIM 101A Drawing - Gesture and Figure</td>
<td>3.0</td>
</tr>
<tr>
<td>ANIM 104 Drawing Fundamentals</td>
<td>3.0</td>
</tr>
<tr>
<td>ANIM 108 Principles of Animation</td>
<td>3.0</td>
</tr>
<tr>
<td>ANIM 115 Storyboarding</td>
<td>3.0</td>
</tr>
<tr>
<td>ANIM 116 Character Development</td>
<td>1.5</td>
</tr>
<tr>
<td>ANIM 130 Introduction to 3-D Computer Animation</td>
<td>3.0</td>
</tr>
<tr>
<td>ANIM 131 Introduction to Gaming</td>
<td>3.0</td>
</tr>
<tr>
<td>ANIM 132 Modeling, Texture Mapping</td>
<td>3.0</td>
</tr>
<tr>
<td>ANIM 134 Animation Environment</td>
<td>3.0</td>
</tr>
<tr>
<td>ANIM 145 Advanced 3-D Modeling</td>
<td>3.0</td>
</tr>
<tr>
<td>ANIM 148 Demo-Reel</td>
<td>3.0</td>
</tr>
<tr>
<td>ARTC 100 Graphic Design I</td>
<td>3.0</td>
</tr>
</tbody>
</table>

**Recommended Electives**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANIM 146 Advanced 3-D Animation</td>
<td>3.0</td>
</tr>
<tr>
<td>ANIM 149 3-D Character Rigging</td>
<td>3.0</td>
</tr>
<tr>
<td>ANIM 151 Game Prototype Production</td>
<td>3.0</td>
</tr>
<tr>
<td>ARTC 290 Portfolio</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Total Units  24.0

**Recommended Electives:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANIM 109 Advanced Principles of Animation</td>
<td>3.0</td>
</tr>
<tr>
<td>ANIM 120 Script Development for Animation</td>
<td>3.0</td>
</tr>
</tbody>
</table>

**Animation - Tradigital Level II**

**Arts Division**

**Certificate L0338**

This multi-level certificate program provides skills based on the principles of storytelling and animation using both traditional and digital media. This Animation - Tradigital Level II certificate provides additional expertise leading to employment opportunities as animators, character designers, and storyboard artists for television, film, Web, mobile media, and gaming.

**Required Courses:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANIM 101A Drawing - Gesture and Figure</td>
<td>3.0</td>
</tr>
<tr>
<td>ANIM 108 Principles of Animation</td>
<td>3.0</td>
</tr>
<tr>
<td>ANIM 111A Animal Drawing</td>
<td>1.5</td>
</tr>
<tr>
<td>ANIM 115 Storyboarding</td>
<td>3.0</td>
</tr>
<tr>
<td>ANIM 116 Character Development</td>
<td>1.5</td>
</tr>
<tr>
<td>ANIM 104 Drawing Fundamentals</td>
<td>3.0</td>
</tr>
</tbody>
</table>

**PLUS the following Level II coursework (9 units)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARTC 100 Graphic Design I</td>
<td>3.0</td>
</tr>
<tr>
<td>ANIM 175 Web Animation With Flash</td>
<td>3.0</td>
</tr>
<tr>
<td>ARTC 290 Portfolio</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Total Units  21.0

**Recommended Electives:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANIM 137A Work Experience in New Digital Media</td>
<td>1.0</td>
</tr>
<tr>
<td>ANIM 172 Motion Graphics, Compositing and Visual Effects</td>
<td>3.0</td>
</tr>
<tr>
<td>ANIM 175 Web Animation With Flash</td>
<td>3.0</td>
</tr>
<tr>
<td>ARTC 290 Portfolio</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Total Units  21.0

**Recommended Elective:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANIM 137A Work Experience in New Digital Media</td>
<td>1.0</td>
</tr>
</tbody>
</table>
### Architectural Technology - Level I

**Certificate T0291**

This multi-level certificate program prepares students to enter the field of architecture and related areas. The student is provided with an option of direct employment in the field or preparation for transfer to the professional school of architecture. The Level I certificate provides a broad overview of the fundamental skills essential to the field, suitable for entry-level employment as an office assistant.

**Required Courses:**
- **ARCH 10** Design I - Elements of Design 3.0
- **ARCH 11** Architectural Drawing 3.0
- **ARCH 12** Architectural Materials 4.0
- **ARCH 16** Basic CAD and Computer Application 4.0
- **ENGL 68** Preparation for College Writing 4.0
- **MATH 51** Elementary Algebra 4.0

**Total Units** 22.0

### Architectural Technology - Design Concentration Level III

**Technology and Health Division Certificate T0206**

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

**Required Courses:**
- **Completion of the Architectural Technology Design Concentration Level I and Level II coursework:** (43 Units)
  - **ARCH 10** Design I - Elements of Design 3.0
  - **ARCH 11** Architectural Drawing 3.0
  - **ARCH 12** Architectural Materials 4.0
  - **ARCH 16** Basic CAD and Computer Application 4.0
  - **ENGL 68** Preparation for College Writing 4.0
  - **MATH 51** Elementary Algebra 4.0
  - **ARCH 13** Architectural Illustration 3.0
  - **ARCH 21** Design II - Architectural Design 3.0
  - **ARCH 23** Architectural Presentations 3.0
  - **ARCH 31** World Architecture I 3.0
  - **ARCH 32** World Architecture II 3.0
  - **ARCH 15** Architectural Working Drawings I 3.0
  - **ARCH 18** Architectural CAD and BIM 3.0

**Total Units** 43.0

### Architectural Technology - Technology Concentration Level II

**Technology and Health Division Certificate T0203**

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

**Required Courses:**
- **Completion of the Architectural Technology Design Concentration Level I and Level II coursework:** (43 Units)
  - **ARCH 10** Design I - Elements of Design 3.0
  - **ARCH 11** Architectural Drawing 3.0
  - **ARCH 12** Architectural Materials 4.0
  - **ARCH 16** Basic CAD and Computer Application 4.0
  - **ENGL 68** Preparation for College Writing 4.0
  - **MATH 51** Elementary Algebra 4.0
  - **ARCH 13** Architectural Illustration 3.0
  - **ARCH 21** Design II - Architectural Design 3.0
  - **ARCH 23** Architectural Presentations 3.0
  - **ARCH 31** World Architecture I 3.0
  - **ARCH 32** World Architecture II 3.0
  - **ARCH 15** Architectural Working Drawings I 3.0
  - **ARCH 18** Architectural CAD and BIM 3.0

**Required Electives:**
- **PLUS the following Level III courses:** (6 Units)
  - **ARCH 18** Architectural CAD and BIM 3.0
  - **ARTD 15A** Drawing: Beginning 3.0
  - **ARTD 20** Design: Two-Dimensional 3.0
  - **ARTS 22** Design: Three-Dimensional 3.0

**Total Units** 50.0 - 52.0

### Architectural Technology - Technology Concentration Level III

**Technology and Health Division Certificate T0204**

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

**Required Courses:**
- **Completion of the Architectural Technology Level I and II coursework:** (44 Units)
  - **ARCH 10** Design I - Elements of Design 3.0
  - **ARCH 11** Architectural Drawing 3.0
  - **ARCH 12** Architectural Materials 4.0
  - **ARCH 16** Basic CAD and Computer Application 4.0
  - **ENGL 68** Preparation for College Writing 4.0
  - **MATH 51** Elementary Algebra 4.0
  - **ARCH 13** Architectural Illustration 3.0
  - **ARCH 21** Design II - Architectural Design 3.0
  - **ARCH 23** Architectural Presentations 3.0
  - **ARCH 31** World Architecture I 3.0
  - **ARCH 32** World Architecture II 3.0
  - **ARCH 15** Architectural Working Drawings I 3.0

**Required Courses:**
- **Completion of the Architectural Technology Level I coursework:** (22 units)
  - **ARCH 10** Design I - Elements of Design 3.0
  - **ARCH 11** Architectural Drawing 3.0
  - **ARCH 12** Architectural Materials 4.0
  - **ARCH 16** Basic CAD and Computer Application 4.0
  - **ENGL 68** Preparation for College Writing 4.0
  - **MATH 51** Elementary Algebra 4.0

**Required Courses:**
- **PLUS the Architectural Technology-Technology Concentration Level II coursework:** (15 units)
  - **ARCH 14** Building and Zoning Codes 3.0
  - **ARCH 15** Architectural Working Drawings I 3.0
  - **ARCH 18** Architectural CAD and BIM 3.0
  - **ARCH 26** Architectural CAD Working Drawings 3.0
  - **INSP 70** Elements of Construction 3.0

**Total Units** 41.0
Programs of Study Leading to a Certificate

**Building Automation**
Technology and Health Division
Certificate T0309
This program is designed to prepare the student for a career in the fields of Building Automation, Energy Management, and Building Technologies. Students desiring a Bachelor's Degree (transfer program) should consult with an advisor to discuss transferability of courses.

**Required Courses:**
- AIRC 20 Refrigeration Fundamentals 4.0
- AIRC 25 Electrical Fundamentals for Air Conditioning and Refrigeration 5.0
- AIRC 31 Commercial Electrical for Air Conditioning and Refrigeration 4.0
- AIRC 34 Advanced Mechanical Refrigeration 4.0
- AIRC 61 Building Automation Fundamentals 2.5
- AIRC 65 Building Automation Networks and Programming 3.0
- AIRC 67 Energy Management 4.0
- ELEC 11 Technical Applications in Microcomputers 3.0
- CISW 41 XML Secure Programming 3.0
- CNET 56 Computer Networks 4.0

**Total Units 36.5**

**Plus the following courses: (6 Units)**
- ARCH 28 Architectural CAD Illustration and Animation 3.0
- ARCH 29 Design IV - Advanced Project 3.0

**PLUS Select one (1) course from: (1-3 Units)**
- ARCH 13 Architectural Illustration 3.0
- ARCH 21 Design II - Architectural Design 3.0
- ARCH 23 Architectural Presentations 3.0
- ARCH 31 World Architecture I 3.0
- ARCH 32 World Architecture II 3.0
- EDT 26 Civil Engineering Technology and CAD 3.0
- INS 71 Construction Estimating 3.0

**Total Units 48.0 - 50.0**

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

**Business Division**
**Certificate L0534**
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 provide the student with a solid foundation from which to build a career in human resources.

**Required Courses:**
- BUSM 20 Principles of Business 3.0
- BUSM 61 Business Organization and Management 3.0
- BUSM 62 Human Resource Management 3.0

**PLUS the Level II courses as follows: (9 Units)**
- ANTH 22 General Cultural Anthropology 3.0
- BUSM 60 Human Relations in Business 3.0
- BUSO 25 Business Communications 3.0

**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: Human Resource Management - Level III**

**Business Division**
**Certificate L0535**
Students completing the Level III Certificate will have knowledge and practical experience in business communications and computer use. Successful completion of this certificate prepares students to handle the increasing diversity and complexity of modern human resource management. Completing the advanced certificate will help those working in the human resource field to prepare for professional certification by the Human Resource Certification Institute.

**Required Courses:**
- BUSM 20 Principles of Business 3.0
- BUSM 61 Business Organization and Management 3.0
- BUSM 62 Human Resource Management 3.0

**Level II as follows: (9 Units)**
- ANTH 22 General Cultural Anthropology 3.0
- BUSM 60 Human Relations in Business 3.0
- BUSO 25 Business Communications 3.0

**Total Units 24.5**

**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**

**Business Division**
**Certificate L0597**
In the Business: International - Level II Certificate students will learn methods and approaches to managing the complexities of doing business in an international environment. Students acquire both theoretical knowledge and practical skills related to managing and marketing within the global arena. Students active in the workforce will acquire new skills that are highly desirable in a fast-paced dynamic global environment, with an emphasis on the small business perspective.

**Required Courses:**
- BUSM 20 Principles of Business 3.0
- BUSM 51 Principles of International Business 3.0
- BUSS 36 Principles of Marketing 3.0

**Plus Level II as follows: (6 Units)**
- BUSM 61 Business Organization and Management 3.0
- BUSM 66 Small Business Management 3.0

**PLUS Select one (1) course from: (4 Units)**
- CHIN 1 Elementary Chinese 4.0
- FRCH 1 Elementary French 4.0
- GERM 1 Elementary German 4.0
- ITAL 1 Elementary Italian 4.0
- JAPN 1 Elementary Japanese 4.0
- SPAN 1 Elementary Spanish 4.0

**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: International - Level III

<table>
<thead>
<tr>
<th>Program Title</th>
<th>Cost Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Business Division</td>
<td>L0528</td>
<td>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 business environment. Business presentations, business planning, team building, conflict resolution, and computer use are core skills developed in this certificate.</td>
</tr>
</tbody>
</table>

#### Required Courses:

**Level I as follows:** (9 Units)
- BUSM 20 Principles of Business 3.0
- BUSM 51 Principles of International Business 3.0
- BUSS 36 Principles of Marketing 3.0

**Level II as follows:** (6 Units)
- BUSM 61 Business Organization and Management 3.0
- BUSM 66 Small Business Management 3.0

**PLUS Select one (1) course from:** (4 Units)
- CHIN 1 Elementary Chinese 4.0
- FRCH 1 Elementary French 4.0
- GERM 1 Elementary German 4.0
- ITAL 1 Elementary Italian 4.0
- JAPN 1 Elementary Japanese 4.0
- SPAN 1 Elementary Spanish 4.0

**PLUS Additional required courses: Level III as follows:** (9 Units)
- BUSL 20 International Business Law 3.0
- BUSM 50 World Culture: A Business Perspective 3.0
- ANTH 22 General Cultural Anthropology 3.0
- BUSM 52 Principles of Exporting and Importing 3.0

**Total Units** 28.0

#### 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

<table>
<thead>
<tr>
<th>Program Title</th>
<th>Cost Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Business Division</td>
<td>L0586</td>
<td>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.</td>
</tr>
</tbody>
</table>

#### Required Courses:

**Completion of Business: Management - Level I coursework as follows:** (9 Units)
- BUSM 20 Principles of Business 3.0
- BUSM 61 Business Organization and Management 3.0
- BUSS 36 Principles of Marketing 3.0

**Plus the Level II courses as follows:** (9.5 Units)
- BUSM 60 Human Relations in Business 3.0
- BUSM 62 Human Resource Management 3.0
- CISB 15 Microcomputer Applications 3.5

**Total Units** 18.5

#### 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

<table>
<thead>
<tr>
<th>Program Title</th>
<th>Cost Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Business Division</td>
<td>T0526</td>
<td>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 provide students with a solid foundation from which to build a career in retail management.</td>
</tr>
</tbody>
</table>

#### Required Courses:

**Completion of the Business: Management - Level I coursework as follows:** (9 Units)
- BUSM 20 Principles of Business 3.0
- BUSM 61 Business Organization and Management 3.0
- BUSS 36 Principles of Marketing 3.0

**Plus the Level II courses as follows:** (11 Units)
- BUSM 60 Human Relations in Business 3.0
- BUSM 62 Human Resource Management 3.0
- CISB 15 Microcomputer Applications 3.5

**Total Units** 29.5

#### Special Information:

Students receiving financial aid need to declare the Level III Certificate as their goal to meet Financial Aid requirements.
<table>
<thead>
<tr>
<th>Programs of Study Leading to a Certificate</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Business: Retail Management - Level III</strong></td>
</tr>
</tbody>
</table>
| Business Division  
Certificate T0521  
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. |
| **Required Courses:**  
Completion of the Retail Management - Level I coursework as follows: (9.5 Units)  
| BUSO 25 Business Communications | 3.0  
| BUSS 50 Retail Store Management | 3.0  
| FASH 62 Retail Buying | 3.0  
| CISB 15 Microcomputer Applications | 3.5  
| **Completion of the Retail Management - Level II coursework as follows: (12 Units)**  
| BUSA 11 Fundamentals of Accounting | 3.0  
| BUSM 61 Business Organization and Management | 3.0  
| BUSM 62 Human Resource Management | 3.0  
| BUSS 36 Principles of Marketing | 3.0  
| **Plus the Level III courses as follows: (11 Units)**  
| BUSA 26 Oral Communications - Financial | 3.0  
| **Total Units** | 32.5  
| **Special Information:**  
Students receiving financial aid need to declare the Level III Certificate as their goal to meet Financial Aid requirements. |
| **Business: Small Business Management - Level II** |
| Business Division  
Certificate L0588  
The Business: Small Business Management - Level II Certificate provides students with practical small business tools. This certificate focuses on issues such as motivation, teamwork, and leadership skills that lead to enhanced productivity through the development of people. Completion of this certificate will lead to new career opportunities for those currently employed in the small business arena. |
| **Required Courses:**  
Completion of Business: Small Business Management - Level I coursework as follows: (9 Units)  
| BUSM 20 Principles of Business | 3.0  
| BUSM 66 Small Business Management | 3.0  
| BUSS 36 Principles of Marketing | 3.0  
| **Plus the Level II courses as follows: (9 Units)**  
| BUSM 60 Human Relations in Business | 3.0  
| BUSM 61 Business Organization and Management | 3.0  
| **Total Units** | 18.0  
| **Special Information:**  
Special Information: Students receiving financial aid need to declare the Level II Certificate as their goal to meet Financial Aid requirements. |
| **Business: Small Business Management - Level III** |
| Business Division  
Certificate T0590  
Upon completion of the Business: Small Business Management - Level III Certificate, students will have built a foundation of management strategies and practices which will enable them to prosper in an ever-changing small business environment. Computer skills applicable to small business will be developed. Students will have a strategic perspective across all small business functions. Students will acquire the skills and abilities necessary to build a successful small business career. |
| **Required Courses:**  
Completion of Business: Small Business Management - Level II coursework as follows: (9 Units)  
| BUSM 20 Principles of Business | 3.0  
| BUSM 66 Small Business Management | 3.0  
| BUSS 36 Principles of Marketing | 3.0  
| **Plus the Level III courses as follows: (11.5 Units)**  
| BUSA 7 Principles of Accounting - Financial | 5.0  
| BUSM 60 Human Relations in Business | 3.0  
| BUSS 10 Principles of Continuous Quality Improvement | 3.0  
| CISB 15 Microcomputer Applications | 3.5  
| **Total Units** | 29.5  
| **Special Information:**  
Special Information: Students receiving financial aid need to declare the Level III Certificate as their goal to meet Financial Aid requirements. |
| **Children's Program Certificate: Administration** |
| Business Division  
Certificate T1313  
The Children's Program Certificate: Administration Specialization is designed for the student who desires general knowledge about Early Childhood Development and skills in administering programs for young children. This certificate meets or exceeds Title 22 education requirements for Center Director. Direct experience with children is highly recommended to complete preparation to be an effective administrator. |
| **Required Courses**  
Completion of Children's Program Certificate: General - Level II as follows: (19 units)  
| CHLD 1 Child, Family, School and Community | 3.0  
| CHLD 5 Principles and Practices in Child Development Programs | 3.0  
| CHLD 6 Survey of Child Development Curriculum | 3.0  
| CHLD 10 Child Growth and Lifespan Development | 3.0  
| CHLD 10H Child Growth and Lifespan Development - Honors | 3.0  
| CHLD 64 Health, Safety and Nutrition of Young Children | 3.0  
| CHLD 68 Children With Special Needs | 3.0  
| CHLD 84 Guidance and Discipline in Child Development Settings | 3.0  
| **PLUS Select three (3) courses from: (9 units)**  
| CHLD 61 Language Arts and Art Media for Young Children | 3.0  
| CHLD 62 Music and Motor Development for Young Children | 3.0  
| CHLD 63 Creative Science and Math for Young Children | 3.0  
| CHLD 73 Infant/Toddler Care and Development | 3.0  
| **PLUS Additional required courses: (11 units)**  
| CHLD 50 Teaching in a Diverse Society | 3.0  
| CHLD 71A Administration of Child Development Programs | 3.0  
| CHLD 71B Management/Marketing/Personnel for ECD Programs | 3.0  

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<table>
<thead>
<tr>
<th>Children's Program Certificate: General - Level III</th>
<th>Children's Program Certificate: Teaching</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Business Division</strong></td>
<td><strong>Business Division</strong></td>
</tr>
<tr>
<td><strong>Certificate L1327</strong></td>
<td><strong>Certificate T1312</strong></td>
</tr>
<tr>
<td>The Children's Program Certificate: General Level III increases skills in planning for children by focusing on different areas of curriculum. With 175 days of experience and the completion of 16 specific G.E. units in Areas A, B, C and D, this certificate meets the Title 5 education requirements for a fully qualified teacher.</td>
<td>The Children's Program Certificate: Teaching specialization is designed for the student who desires knowledge about Early Childhood Development and skills for teaching young children. This certificate contains two laboratory and one fieldwork component emphasizing working with children. This certificate exceeds Title 22 education requirements for fully qualified teachers. With 175 days of experience and the completion of 16 specified G.E. Areas A, B, C, and D, this certificate meets Title 5 education requirements for a fully qualified teacher.</td>
</tr>
<tr>
<td><strong>Required Courses:</strong></td>
<td><strong>Required Courses:</strong></td>
</tr>
<tr>
<td>Completion of Children's Program Certificate: General - Level I and Level II coursework (19 Units)</td>
<td>Completion of Children's Program Certificate: Teaching</td>
</tr>
<tr>
<td>CHLD 1 Child, Family, School and Community 3.0</td>
<td>CHLD 1 Child, Family, School and Community 3.0</td>
</tr>
<tr>
<td>CHLD 5 Principles and Practices in Child Development Programs 3.0</td>
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</tr>
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<td>CHLD 6 Introduction to Child Development Curriculum 3.0</td>
</tr>
<tr>
<td>CHLD 11 Child and Adolescent Development 3.0</td>
<td>CHLD 6 Early Childhood Development Observation and Assessment 2.0</td>
</tr>
<tr>
<td>CHLD 12 Health, Safety and Nutrition 3.0</td>
<td>CHLD 67 Early Childhood Education Practicum Laboratory 2.0</td>
</tr>
<tr>
<td>CHLD 68 Children With Special Needs 3.0</td>
<td>CHLD 68 Children With Special Needs 3.0</td>
</tr>
<tr>
<td>CHLD 84 Guidance and Discipline in Child Development Settings 1.0</td>
<td>CHLD 69 Early Childhood Development Field Work 2.0</td>
</tr>
<tr>
<td><strong>PLUS Select three (3) Level III courses from:</strong></td>
<td><strong>PLUS Select two (2) courses from:</strong></td>
</tr>
<tr>
<td>(9 Units)</td>
<td>(6 units)</td>
</tr>
<tr>
<td>CHLD 50 Teaching in a Diverse Society 3.0</td>
<td>CHLD 51 Early Literacy in Child Development 3.0</td>
</tr>
<tr>
<td>CHLD 61 Language Arts and Art Media for Young Children 3.0</td>
<td>CHLD 61 Language Arts and Art Media for Young Children 3.0</td>
</tr>
<tr>
<td>CHLD 62 Music and Motor Development for Young Children 3.0</td>
<td>CHLD 62 Music and Motor Development for Young Children 3.0</td>
</tr>
<tr>
<td>CHLD 63 Creative Sciencing and Math for Young Children 3.0</td>
<td>CHLD 63 Creative Sciencing and Math for Young Children 3.0</td>
</tr>
<tr>
<td>CHLD 73 Infant/Toddler Care and Development 3.0</td>
<td><strong>Required Electives:</strong></td>
</tr>
<tr>
<td><strong>Total Units 28.0</strong></td>
<td>Select two (2) courses from:</td>
</tr>
<tr>
<td><strong>Total Units 19.0</strong></td>
<td></td>
</tr>
</tbody>
</table>

**Computer and Networking Technology - Level I**

The Computer and Networking Technology Level I and II certificate programs prepare students to become computer and networking service technicians. Courses required for the Level I certificate provide foundations in basic electricity and electronics, operating systems, computer service and troubleshooting, and preparation for the A+ certification examination sponsored by CompTIA and offered at testing centers throughout the country. Level I certificate students learn to install, configure, maintain, troubleshoot, and repair computers and networks. With further preparation leading to the Level II certificate, students will ready themselves for the CompTIA Network+, Server+, and Security+ certification tests. These industry certifications are recognized worldwide as benchmarks for the computer and networking technician. Further, students will have requisite skills upon which to seek additional I.T. certifications available for the computer and networking fields.

**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 2.0
- ELEC 11 Technical Applications 3.0
  - in Microcomputers
- CISB 15 Microcomputer Applications 3.5
Programs of Study Leading to a Certificate

Total Units 29.0 - 29.5

**Computer and Networking Technology - Level II**

**Technology and Health Division Certificate T0726**

The Computer and Networking Technology Level I and II certificate programs prepare students to become computer and networking service technicians. Courses required for the Level I certificate provide foundations in basic electricity and electronics, operating systems, computer service and troubleshooting, and preparation for the A+ certification exam sponsored by CompTIA and offered at testing centers throughout the country. In addition to the Level I certificate requirements, students seeking the Level II certificate cover computer networks, servers, and customer relations, and will take preparatory courses for the CompTIA Network+, Server+, and Security+ certification exams. These industry certifications are recognized worldwide as benchmarks for the computer and networking technician. Further, students will have requisites upon which to seek additional I.T. certifications available for the computer and networking fields.

**Required Courses:**

Completion of the Computer and Networking Technology - Level I coursework as follows: (29.0-29.5 Units)

<table>
<thead>
<tr>
<th>Course Abbreviation</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELEC 50A</td>
<td>Electronic Circuits - Direct Current (DC)</td>
<td>4.0</td>
</tr>
<tr>
<td>ELEC 50B</td>
<td>Electronic Circuits (AC)</td>
<td>4.0</td>
</tr>
<tr>
<td>ELEC 56</td>
<td>Digital Electronics</td>
<td>4.0</td>
</tr>
</tbody>
</table>

**Total Units** 29.0 - 29.5

**Recommended Electives**

ELEC 56 Digital Electronics 4.0

**Plus the Level II courses as follows:** (12 Units)

<table>
<thead>
<tr>
<th>Course Abbreviation</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CNET 56</td>
<td>Computer Networks</td>
<td>4.0</td>
</tr>
<tr>
<td>CNET 62</td>
<td>Network+ Certification Preparation</td>
<td>2.0</td>
</tr>
<tr>
<td>CNET 64</td>
<td>Server+ Certification Preparation</td>
<td>2.0</td>
</tr>
<tr>
<td>CNET 66</td>
<td>Security+ Certification Preparation</td>
<td>2.0</td>
</tr>
<tr>
<td>TECH 60</td>
<td>Customer Relations for the Technician</td>
<td>2.0</td>
</tr>
</tbody>
</table>

**Total Units** 41.0 - 41.5

**Computer Systems Technology**

**Technology and Health Division Certificate L0924**

In addition to courses in electronics fundamentals, the Computer Systems Technology certificate encompasses advanced coursework in computer systems circuitry, including microcontrollers and microprocessors. This advanced certificate is one of three available for students who do not complete all second-year systems courses at once, or who complete them one at a time. Two other certificate programs are also available: a one-year certificate in Electronics Technology, and a two-year Associate in Science degree in Electronics Technology.

**Recommended Electives:**

ELEC 51 Semiconductor Devices and Circuits 4.0
ELEC 74 Microcontroller Systems 4.0
EST 54 Cabling and Wiring Standards 4.0

**Construction Inspection**

**Technology and Health Division Certificate L0920**

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

**Required Courses:**

<table>
<thead>
<tr>
<th>Course Abbreviation</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARCH 12</td>
<td>Architectural Materials and Specifications</td>
<td>4.0</td>
</tr>
<tr>
<td>ARCH 14</td>
<td>Building and Zoning Codes</td>
<td>3.0</td>
</tr>
<tr>
<td>INST 70</td>
<td>Elements of Construction</td>
<td>3.0</td>
</tr>
<tr>
<td>INST 71</td>
<td>Construction Estimating</td>
<td>3.0</td>
</tr>
<tr>
<td>INST 87</td>
<td>Fund Construct Inspect</td>
<td>3.0</td>
</tr>
<tr>
<td>MATH 51</td>
<td>Elementary Algebra</td>
<td>4.0</td>
</tr>
</tbody>
</table>

**Total Units** 23.0

**Recommended Electives:**

ARCH 11 Architectural Drawing 3.0
ARCH 15 Architectural Working Drawings I 3.0
EDT 26 Civil Engineering Technology and CAD 3.0
INSP 67 Reading Construction Drawings 3.0

**Correctional Sciences**

**Technology and Health Division Certificate T2103**

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

**Required Courses:**

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<tr>
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<td>ADJU 2</td>
<td>Principles and Procedures of the Justice System</td>
<td>3.0</td>
</tr>
<tr>
<td>ADJU 3</td>
<td>Narcotics Investigation</td>
<td>3.0</td>
</tr>
<tr>
<td>ADJU 59</td>
<td>Gangs and Corrections</td>
<td>3.0</td>
</tr>
<tr>
<td>CORS 35</td>
<td>Interviewing and Counseling in Corrections</td>
<td>3.0</td>
</tr>
<tr>
<td>CORS 40</td>
<td>Crime and Delinquency</td>
<td>3.0</td>
</tr>
<tr>
<td>CORS 45</td>
<td>The Violent Offender</td>
<td>3.0</td>
</tr>
</tbody>
</table>

**Total Units** 30.0

**Recommended Electives:**

ADJU 68 Administration of Justice Report Writing 3.0
CORS 10 Introduction to Correctional Sciences 3.0
CORS 15 Control and Supervision of the Offender 3.0
CORS 20 Correctional Law 3.0
CORS 25 Probation and Parole 3.0
CORS 30 Ethnic Relations in Corrections 3.0
KINF 50 Physical Skills Preparation for Administration of Justice and Fire Technology 2.0
KINF 51 Agility Testing Preparation for Administration of Justice and Fire Technology 1.0
KINF 52 Fitness and Conditioning for Administration of Justice, Fire Technology, and Forestry 1.0

**Electronic Systems Technology - Level II**

**Technology and Health Division Certificate L0928**

The Level II certification (14 units) adds customer relations skills and the installation, calibration, setup maintenance and troubleshooting of home theater, home automation, and home security systems. Either a course on preparing for the C-7 license or troubleshooting digital TV with LCD, plasma and DLP video displays is included.

**Required Courses:**

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**Recommended Electives:**

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<tbody>
<tr>
<td>CISB 15</td>
<td>Microcomputer Applications</td>
<td>3.5</td>
</tr>
<tr>
<td>ELEC 74</td>
<td>Microcontroller Systems</td>
<td>4.0</td>
</tr>
<tr>
<td>TECH 60</td>
<td>Customer Relations for the Technician</td>
<td>2.0</td>
</tr>
</tbody>
</table>

**Total Units** 30.0

**Construction Inspection**

**Technology and Health Division Certificate L0928**

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.

**Required Courses:**

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**Total Units** 23.0

**Recommended Electives:**

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**Correctional Sciences**

**Technology and Health Division Certificate T2103**

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

**Required Courses:**

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</table>

**Total Units** 30.0

**Recommended Electives:**

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</thead>
<tbody>
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<td>CORS 25</td>
<td>Probation and Parole</td>
<td>3.0</td>
</tr>
<tr>
<td>CORS 30</td>
<td>Ethnic Relations in Corrections</td>
<td>3.0</td>
</tr>
<tr>
<td>KINF 50</td>
<td>Physical Skills Preparation for Administration of Justice and Fire Technology</td>
<td>2.0</td>
</tr>
<tr>
<td>KINF 51</td>
<td>Agility Testing Preparation for Administration of Justice and Fire Technology</td>
<td>1.0</td>
</tr>
<tr>
<td>KINF 52</td>
<td>Fitness and Conditioning for Administration of Justice, Fire Technology, and Forestry</td>
<td>1.0</td>
</tr>
</tbody>
</table>
Students completing the ECET certificate program possess ample skills to make them versatile employees. Typical technician-level job classifications include field service technician, field engineer, computer service technician, customer service technician, communications technician, maintenance technician, and electronics technician. All students completing the certificate program are automatically eligible to receive, without further examination, a 3rd class Technician License from the National Association of Radio and Telecommunications Engineers (N.A.R.T.E.), while students completing certificate programs are automatically eligible for the N.A.R.T.E. 4th Class Technician license.

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

### Total Units 45.0

### Recommended Electives:
- **CISP 11** Programming in Visual Basic 3.0
- **ELEC 62** Advanced Surface Mount Assembly and Rework 2.0
- **ELEC 76** FCC General Radiotelephone Operator License Preparation
- **PHYS 2AG** General Physics 4.0

### Electronics Communications Technology and Health Division Certificate T0904

In addition to courses in electronics fundamentals, the Electronics Communications certificate program encompasses the study of both wire-based and wireless forms of analog and digital communications systems. Among the topics covered are amplitude and frequency modulation, multiplexing, antennas, transmission lines, and radio-wave propagation, as well as microwave systems, including radar and satellite operations.

This advanced certificate is one of three available for students who do not complete all second-year systems courses at once, or who complete them one at a time. Two other certificate programs are also available: a one-year certificate in Electronics Technology, and a two-year certificate having the same title as the A.S. degree. A.S. degree recipients are automatically eligible to receive, without further examination, a 3rd class Technician License from the National Association of Radio and Telecommunications Engineers (N.A.R.T.E.), while students completing certificate programs are automatically eligible for the N.A.R.T.E. 4th Class Technician license.

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

### Total Units 34.0
The Emergency Medical Services faculty recommend that you complement your studies with selected elective courses chosen from the list above. You should meet with a professor of Emergency Medical Services to help you determine which of those electives would best suit your career plans.

Special Information:
To remain in the program, students must maintain a grade of “C” (80 percent) or better in all courses and receive a grade of “C” (80 percent) or better on all final exams, per state regulations. Before starting in clinical rotations, students must pass a criminal background check. Upon successful completion of the required courses, students are given a certificate documenting completion of the Emergency Medical Technician - Paramedic (EMT-P) program. Students are then eligible for licensure by taking and passing both the National Registry Exam and County Paramedic accreditation exam.

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

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

1) Be an EMT-I, currently certified in California.
2) Submit a letter on official stationery from a recognized EMS agency verifying completion of six (6) months of pre-hospital field experience as an EMT-I (approximately 1,200 hours) within the last 2 years.
3) File a College application and be accepted as a student at Mt. San Antonio College.
4) Submit an application for the Paramedic Program to the Health Science Programs Office (909) 274-7500, Ext. 4750. All applications are dated upon receipt in the Health Science Programs Office. The Paramedic Program begins three (3) times per year, in August, January and May and runs for 29 weeks.
5) Take the Assessment of Written English, the Math Placement Test and Degrees of Reading Power test at least 10 working days before the start of the pre-courses EMS 1 and EMS 2. Placement examinations will be individually assessed to determine eligibility for the pre-courses. The placement tests are administered by the Assessment Center, located in the Student Services Center.
6) Successful completion of EMS 1, Paramedic Fundamentals and Selection and EMS 2, Preparation for Paramedic Program.
7) Forward two (2) official transcripts of all coursework completed (high school, EMT – I, Fire Science and college work other than Mt. San Antonio College courses). One transcript must be sent to the Health Science Programs Office; the other to the Admissions and Records Office. For students who possess a college degree, the English placement examination is not required. However, it will be necessary for students to obtain two (2) official copies of the college transcript showing the degree issued. One official transcript must be sent to the Health Science Programs Office; the other to the Admissions and Records Office. NOTE: If the course(s) were taken and/or requested by the college or its agents,ALL APPLICANTS ARE EXPECTED TO MEET THE ESSENTIAL FUNCTIONS FOR SUCCESS IN THE PARAMEDIC PROGRAM.

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

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

Working Environment:
• May be exposed to infectious and contagious disease, without prior notification
• Regularly exposed to the risk of blood borne diseases
• Exposed to hazardous agents, body fluids and wastes
• Exposed to odorous chemicals and specimens
• Subject to hazards of flammable, explosive gases
• Subject to burns and cuts
• Handle emergency or crisis situations
• Subject to many interruptions
• Contact with patients having different religious, culture, ethnicity, race, sexual orientation, psychological and physical disabilities and under a wide variety or circumstances
• Requires decisions/actions related to end of life issues
• Exposure to products containing latex
English Language Skills:
Although proficiency in English is not a criterion for admission into the EMT-P 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.

Fashion Design - Level I
Business Division
Certificate L1397
The Fashion Design Level I Certificate consists of basic apparel design courses that prepare students for entry level work in the fields of apparel manufacturing, production, and technical design. Upon completion of the certificate, students will have a basic understanding of clothing construction and patternmaking. In addition, students will develop CAD skills for technical drawing and computerized patternmaking.

Required Courses:
- FASH 10 Clothing Construction I 3.0
- FASH 12 Clothing Construction II 3.0
- FASH 17 Textiles 3.0
- FASH 21 Patternmaking I 3.0
- FASH 24 Fashion Patternmaking by Computer 3.0
- FASH 25 Fashion Computer-Assisted Drawing 3.0

Total Units 18.0

Fashion Design - Level II
Business Division
Certificate T1389
The Fashion Design: Level II Certificate builds upon the 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.

Required Courses:
- FASH 10 Clothing Construction I 3.0
- FASH 12 Clothing Construction II 3.0
- FASH 17 Textiles 3.0
- FASH 21 Patternmaking I 3.0
- FASH 24 Fashion Patternmaking by Computer 3.0
- FASH 25 Fashion Computer-Assisted Drawing 3.0

Plus the Level II coursework as follows: (6 units)
- FASH 22 Fashion Design By Draping 3.0
- FASH 23 Patternmaking II 3.0

Total Units 24.0

Fashion Merchandising - Level I
Business Division
Certificate L0314
The certificate in Fashion Merchandising offers students courses specializing in apparel retailing, advertising, textiles, and CAD technical drawing. The courses emphasize the business of fashion, wholesale merchandise planning, apparel technology, retailing, and fashion branding targeting specific markets. Upon completion of the certificate, students will be able to develop marketing strategies, create promotional campaigns, understand the buying process, and analyze retail businesses.

Required Courses:
- FASH 8 Introduction to Fashion 3.0
- FASH 15 Aesthetic Design in Fashion 3.0
- FASH 17 Textiles 3.0
- FASH 25 Fashion Computer-Assisted Drawing 3.0
- FASH 30 Fashion Design and Product Development I

Plus the Level II coursework as follows: (12 units)
- FASH 9 History of Costume and Fashion 3.0
- FASH 62 Retail Buying and Merchandising or BUSS 50 Retail Store Management and Merchandising
- FASH 63 Fashion Promotion or BUSS 33 Advertising and Promotion
- FASH 66 Visual Merchandising Design 3.0

Recommended Electives:
- FASH 81 Work Experience in Fashion Merchandising and Retail 1.0

Total Units 30.0

Fashion Merchandising - Level II
Business Division
Certificate L1303
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.

Required Courses:
- FASH 8 Introduction to Fashion 3.0
- FASH 10 Clothing Construction I 3.0
- FASH 15 Aesthetic Design in Fashion 3.0
- FASH 17 Textiles 3.0
- FASH 25 Fashion Computer-Assisted Drawing 3.0
- FASH 30 Fashion Design and Product Development I

Plus the Level II coursework as follows: (18 units)
- FASH 9 History of Costume and Fashion 3.0
- FASH 62 Retail Buying and Merchandising or BUSS 50 Retail Store Management and Merchandising
- FASH 63 Fashion Promotion or BUSS 33 Advertising and Promotion
- FASH 66 Visual Merchandising Design 3.0
- FASH 81 Work Experience in Fashion Merchandising and Retail 1.0

Total Units 24.0

Fire Technology
Technology and Health Division
Certificate L2105
The Fire Science Certificate has been developed to offer pre-employment education for the undergraduate who desires to enter the field of fire science. It also provides 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.

Required Courses:
- FIRE 1 Fire Protection Organization 3.0
- FIRE 2 Fire Prevention Technology 3.0
- FIRE 3 Fire Protection Equipment and Systems 3.0
- FIRE 4 Building Construction for Fire Protection 3.0
- FIRE 5 Fire Behavior and Combustion 3.0
- FIRE 13 Principles of Fire and Emergency Services Safety and Survival 3.0

PLUS select two (2) courses from:
- FIRE 6 Hazardous Materials/ICS 3.0
- FIRE 7 Fire Fighting Tactics and Strategy 3.0
- FIRE 8 Fire Company Organization and Management 3.0
- FIRE 9 Fire Hydraulics 3.0
- FIRE 10 Arson and Fire Investigation 3.0
- FIRE 11 Fire Apparatus and Equipment 3.0
- FIRE 12 Wildland Fire Control 4.5
- FIRE 86 Basic Fire Academy 14.5
- KINF 53 Physical Training 2.5

Total Units 23.5 - 37.0

Recommended Electives:
- KINF 50 Physical Skills Preparation for Administration of Justice and Fire Technology 2.0
- KINF 51 Agility Testing Preparation for Administration of Justice and Fire Technology 1.0
- KINF 52 Fitness and Conditioning for Administration of Justice, Fire Technology, and Forestry 1.0
Graphic Design – Level II

Arts Division
Certificate T0321
This multi-level certificate program is designed to prepare students for careers in the Graphic Design field of Communication Art. Students are given a balanced blend of creative, design, and technology skills necessary to develop successful graphic design for print, web, and other media channels. This Graphic Design Level II certificate offers additional expertise necessary for employment opportunities in the field of Graphic Design. The production software reflects industry standards and course content is driven by industry needs.

Required Courses:
Completion of the Graphic Design Level I coursework (15 units):
ARTC 100 Graphic Design I 3.0
ARTC 120 Graphic Design II 3.0
ARTC 140 Graphic Design III 3.0
ARTC 200 Web Design 3.0
ARTC 220 Graphic Design IV 3.0
PLUS the following courses: (16 units)
ARTC 160 Typography 3.0
ARTC 240 Multimedia Design 3.0
ARTC 280 Commercial Art Studio 4.0 - Special Projects
ARTC 290 Portfolio 3.0
ARTD 20 Design: Two-Dimensional 3.0

Required Electives:
Select one (1) course from the following: (3 units)
ANIM 104 Drawing Fundamentals 3.0
ANIM 130 Introduction to 3-D Computer Animation 3.0
ANIM 172 Motion Graphics, Compositing and Visual Effects 3.0
ARTD 21 Design: Color and Composition 3.0

Total Units 18.0

Horse Ranch Management - Level II

Natural Sciences Division
Certificate L0102
The Horse Ranch Management - Level II certificate will provide students with intermediate skills that will lead to a career in the equine industry. These courses will concentrate on care and maintenance, basic anatomy and physiology of horses, and breeding procedures. This certificate may aid in the student’s search for an entry level position at a horse facility.

Required Courses:
AGAG 59 Work Experience in Agriculture 1.0
AGAIN 2 Animal Nutrition 3.0
AGAIN 94 Animal Breeding 3.0
AGLI 16 Horse Production and Management 4.0
AGLI 18 Horse Ranch Management 4.0
AGLI 96 Animal Sanitation and Disease Control 3.0

Total Units 18.0

Hospitality: Hospitality Management - Level II

Business Division
Certificate L1325
The Hospitality Management - Level II Certificate prepares students for mid-level or Manager-in-Training positions in the hospitality industry. Students gain practical and management training in: dining room service management, supervision, financial accounting, lodging management, and hospitality law. Students who successfully complete the requirements for this certificate will also be required to complete a minimum of 60 non-paid or 75 paid hours of work experience in the hospitality industry.

Required Courses:
HRM 51 Introduction to Hospitality 3.0
HRM 53 Dining Room Service Management 3.0
HRM 56 Hospitality Supervision 3.0
HRM 64 Hospitality Financial Accounting 3.0
HRM 66 Hospitality Law 3.0
HRM 70 Introduction to Lodging 3.0
HRM 91 Hospitality Work Experience 1.0

Total Units 19.0

Industrial Design Engineering - Level I

Technology and Health Division
Certificate L0327
This program is designed to prepare the student for a career in a wide range of industries including product and industrial design firms and fabrication and manufacturing companies. Students are introduced to product development from design through prototyping and fabrication for manufacturing. Portfolio or prototype development is required on each of the semester levels.

Required Courses:
IDE 110 Design Foundation-Visual Literacy 3.0
IDE 120 Introduction to CAD 3.0
IDE 130 Shop Processes 3.0
IDE 150 Design Foundations 3.0
IDE 160 Intermediate CAD 3.0
IDE 170 Introduction to Prototyping 3.0

Total Units 18.0

Recommended Electives:
ELEC 50A Electronic Circuits - Direct Current (DC) 4.0
ELEC 81 Laboratory Studies in Electronics 1.0 - Technology
MATH 51 Elementary Algebra 4.0
PHYS 1 Physics 4.0
WELD 30 Metal Sculpture 2.0
WELD 40 Introduction to Welding 2.0

Industrial Design Engineering - Level II

Technology and Health Division
Certificate L0328
This program is designed to prepare the student for a career in a wide range of industries including product and industrial design firms and fabrication and manufacturing companies. Students are introduced to product development from design through prototyping and fabrication for manufacturing. Portfolio or prototype development is required on each of the semester levels. In the Level Three certificate, this will culminate in a final “senior project,” which is a portfolio that includes two and three-dimensional design, documentation (accountability measures), presentation, and fabrication. This project will demonstrate the student’s mastery of the concepts and methodologies learned during the program.

Required Courses:
IDE 110 Design Foundation-Visual Literacy 3.0
IDE 120 Introduction to CAD 3.0
IDE 130 Shop Processes 3.0
IDE 150 Design Foundations 3.0
IDE 160 Intermediate CAD 3.0
IDE 170 Introduction to Prototyping 3.0
IDE 210 Advanced Media 3.0
IDE 220 Advanced CAD 3.0
IDE 130 Shop Processes 3.0
IDE 150 Design Foundations 3.0
IDE 160 Intermediate CAD 3.0
IDE 170 Introduction to Prototyping 3.0
IDE 210 Advanced Media 3.0
IDE 220 Advanced CAD 3.0
IDE 130 Shop Processes 3.0
IDE 150 Design Foundations 3.0
IDE 160 Intermediate CAD 3.0
IDE 170 Introduction to Prototyping 3.0
IDE 210 Advanced Media 3.0
IDE 220 Advanced CAD 3.0
IDE 130 Shop Processes 3.0
IDE 150 Design Foundations 3.0
IDE 160 Intermediate CAD 3.0
IDE 170 Introduction to Prototyping 3.0
IDE 210 Advanced Media 3.0
IDE 220 Advanced CAD 3.0
IDE 130 Shop Processes 3.0
IDE 150 Design Foundations 3.0
IDE 160 Intermediate CAD 3.0
IDE 170 Introduction to Prototyping 3.0
IDE 210 Advanced Media 3.0
IDE 220 Advanced CAD 3.0
IDE 130 Shop Processes 3.0
IDE 150 Design Foundations 3.0
IDE 160 Intermediate CAD 3.0
IDE 170 Introduction to Prototyping 3.0
IDE 210 Advanced Media 3.0
IDE 220 Advanced CAD 3.0
IDE 130 Shop Processes 3.0
IDE 150 Design Foundations 3.0
IDE 160 Intermediate CAD 3.0
IDE 170 Introduction to Prototyping 3.0
IDE 210 Advanced Media 3.0
IDE 220 Advanced CAD 3.0
IDE 130 Shop Processes 3.0
IDE 150 Design Foundations 3.0
IDE 160 Intermediate CAD 3.0
IDE 170 Introduction to Prototyping 3.0
IDE 210 Advanced Media 3.0
IDE 220 Advanced CAD 3.0
IDE 130 Shop Processes 3.0
IDE 150 Design Foundations 3.0
IDE 160 Intermediate CAD 3.0
IDE 170 Introduction to Prototyping 3.0
IDE 210 Advanced Media 3.0
IDE 220 Advanced CAD 3.0
ChLD 64  Health, Safety and Nutrition of Young Children  3.0
ChLD 72  Teacher, Parent, and Child Relationships  3.0

**Interior Design Kitchen and Bath Specialization**

**Business Division Certificate T0306**
The Kitchen and Bath Specialization coursework builds upon the Level III Certificate to provide students with specialized skills in the area of Kitchen and Bath Design and is accredited by the national Kitchen and Bath Association. Students will strengthen career perspectives and develop work to incorporate into a professional portfolio. This certificate may aid in the student's search for an intermediate position as an assistant to a Kitchen and Bath Designer. Students completing this certificate and meeting the eligibility requirements will qualify to sit for the academic portion of the Certified Kitchen Designer (CKD) and Certified Bath Designer (CBD) upon graduation to earn the Associate Kitchen and Bath Designer (AKBD) designation.

**Required Courses:**
- Completion of the Interior Design: Level I coursework: (9 units)
  - ID 10  Introduction to Interior Design  2.0
  - ID 10L  Introduction to Interior Design Laboratory  1.0
  - ID 12  Materials and Products for Interior Design  3.0
  - ID 14  History of Furniture and Decorative Arts  3.0

- Completion of the Interior Design: Level II coursework: (24 units)
  - ID 20  Color and Design Theory I 3.0
  - ID 21  Color and Design Theory II 3.0
  - ID 22  Design Drawing for Interior Design  3.0
  - ID 23  Computer Aided Drawing for Interior Design I  3.0
  - ID 25  Space Planning for Interior Design I  3.0
  - ID 26  Space Planning for Interior Design II  3.0
  - ID 27  Rapid Visualization  3.0
  - ID 29  Interior Design Studio I  3.0

- **PLUS completion of required courses for Kitchen and Bath Specialization: (9 units)**
  - ID 30  Kitchen and Bath Studio I  3.0
  - ID 41  Kitchen and Bath Studio II  3.0
  - ID 48  Internship in Kitchen and Bath (ID 48: 1 - 3 unit course, 3 units required)  1.0

- **Total Units 59.0**

**Recommended Electives:**
- ID 50  Interior Design Specialized Studio  3.0
- ID 52  Independent Studies in Interior Design  1.0

**Interior Design: Level III Business Division Certificate T0304**
The Interior Design: Level III Certificate builds upon the Level II coursework to provide students with advanced skills that will enhance their Interior Design careers. There is a focus on building systems, lighting, advanced computer applications, business practices and studio design. Students will prepare professional portfolios to strengthen career perspectives. This certificate may aid in the student's search for an entry-level position as an assistant to a designer, library coordinator, or a specialization in the field of interior design.

**Required Courses:**
- Completion of the Interior Design: Level I coursework: (9 units)
  - ID 10  Introduction to Interior Design  2.0
  - ID 10L  Introduction to Interior Design Laboratory  1.0
  - ID 12  Materials and Products for Interior Design  3.0
  - ID 14  History of Furniture and Decorative Arts  3.0

- Completion of the Interior Design: Level II coursework: (24 units)
  - ID 20  Color and Design Theory I 3.0
  - ID 21  Color and Design Theory II 3.0
  - ID 22  Design Drawing for Interior Design  3.0
  - ID 23  Computer Aided Drawing for Interior Design I  3.0
  - ID 25  Space Planning for Interior Design I  3.0
  - ID 26  Space Planning for Interior Design II  3.0
  - ID 27  Rapid Visualization  3.0
  - ID 29  Interior Design Studio I  3.0

- **PLUS completion of required courses for Kitchen and Bath Specialization: (9 units)**
  - ID 30  Kitchen and Bath Studio I  3.0
  - ID 41  Kitchen and Bath Studio II  3.0
  - ID 48  Internship in Kitchen and Bath (ID 48: 1 - 3 unit course, 3 units required)  1.0

- **Total Units 59.0**

**Recommended Electives:**
- ID 50  Interior Design Specialized Studio  3.0
- ID 52  Independent Studies in Interior Design  1.0

**Interior Design: Level II Business Division Certificate T0304**
The Interior Design: Level II Certificate builds upon the Level I coursework to provide students with intermediate skills that will lead to a career in interior design. There is a focus on design process including drawing and presentations skills, model-making, sketching, computer applications, and the planning of space and studio design. Students will prepare professional portfolios to strengthen career perspectives. This certificate may aid in the student's search for an entry-level position as an assistant to a designer, library coordinator, or a specialization in the field of interior design.

**Required Courses:**
- Completion of the Interior Design: Level I coursework: (9 units)
  - ID 10  Introduction to Interior Design  2.0
  - ID 10L  Introduction to Interior Design Laboratory  1.0
  - ID 12  Materials and Products for Interior Design  3.0
  - ID 14  History of Furniture and Decorative Arts  3.0

- Completion of the Interior Design: Level II coursework: (24 units)
  - ID 20  Color and Design Theory I 3.0
  - ID 21  Color and Design Theory II 3.0
  - ID 22  Design Drawing for Interior Design  3.0
  - ID 23  Computer Aided Drawing for Interior Design I  3.0
  - ID 25  Space Planning for Interior Design I  3.0
  - ID 26  Space Planning for Interior Design II  3.0
  - ID 27  Rapid Visualization  3.0
  - ID 29  Interior Design Studio I  3.0

- **PLUS completion of required courses for Kitchen and Bath Specialization: (9 units)**
  - ID 30  Kitchen and Bath Studio I  3.0
  - ID 41  Kitchen and Bath Studio II  3.0
  - ID 48  Internship in Kitchen and Bath (ID 48: 1 - 3 unit course, 3 units required)  1.0

- **Total Units 59.0**

**Recommended Electives:**
- ID 50  Interior Design Specialized Studio  3.0
- ID 52  Independent Studies in Interior Design  1.0
Programs of Study Leading to a Certificate

Programs of Study Leading to a Certificate (Continued)

Natural Sciences Division

Natural Sciences Division

Landscape Equipment Technology Certificate L0358
This certificate program is designed to give students basic skills in equipment repair and maintenance. It covers basic skills in the operation and repair of landscape and turf management equipment, including small engine repair, equipment operations, and maintenance of turf and landscape systems.

Required Courses:
- AGOR 29 Ornamental Plants - Herbaceous 3.0
- AGOR 32 Landscaping and Nursery Management 3.0
- AGOR 64 Landscape Irrigation - Drip and Low Volume 3.0

Total Units 18.0

Landscape Irrigation Certificate L0110
This certificate program is designed to give students basic skills in irrigation design, repair, and maintenance. It covers basic skills in the installation, repair, and maintenance of landscape irrigation systems.

Required Courses:
- AGOR 52 Hydraulics 3.0
- AGOR 53 Small Engine Repair I 3.0
- AGOR 54 Small Engine Repair II 3.0
- AGOR 55 Diesel Engine Repair 3.0
- AGOR 56 Engine Diagnostics 3.0
- AGOR 57 Power Train Repair 3.0

Total Units 18.0

Landscape Design – Level I Certificate L0109
This certificate program is designed to give students basic skills in landscape design. It covers basic skills in the design and installation of landscape features, including plants, irrigation systems, and landscape furnishings.

Required Courses:
- AGOR 1 Horticultural Science 3.0
- AGOR 13 Landscape Design 3.0
- AGOR 29 Ornamental Plants - Herbaceous 3.0
- AGOR 30 Ornamental Plants - Trees and Woody Shrubs 3.0
- AGOR 50 Soil Science and Management 3.0
- AGOR 71 Landscape Construction Fundamentals 3.0

Total Units 18.0

Landscape Park Maintenance Certificate L0357
This certificate program is designed to give students basic skills in the maintenance and landscape of parks. It covers basic skills in the maintenance and landscape of parks, including landscape design, installation, and management.

Required Courses:
- AGOR 1 Horticultural Science 3.0
- AGOR 24 Integrated Pest Management 3.0
- AGOR 30 Ornamental Plants 3.0
- AGOR 51 Tractor and Landscape Equipment Operations 3.0
- AGOR 63 Landscape Irrigation Systems Management 3.0
- AGOR 75 Urban Arboriculture 3.0

Total Units 18.0

Natural Sciences Division

Certificare T2102
This program is designed to prepare students for employment following graduation. It covers basic skills in the operation and repair of landscape and turf management equipment, including small engine repair, equipment operations, and maintenance of turf and landscape systems.

Required Courses:
- ADJU 1 The Administration of Justice System 3.0
- ADJU 2 Principles and Procedures of the Justice System 3.0
- ADJU 3 Concepts of Criminal Law 3.0
- ADJU 4 Legal Aspects of Evidence 3.0
- ADJU 5 Community Relations 3.0
- ADJU 68 Administration of Justice Report Writing 3.0

Recommended Electives:
- KINF 50 Physical Skills Preparation for Administration of Justice and Fire Technology 2.0
- KINF 51 Agility Testing Preparation for Administration of Justice and Fire Technology 1.0
- KINF 52 Fitness and Conditioning for Administration of Justice, Fire Technology, and Forestry 1.0
**Manufacturing Technology**  
**Technology and Health Division**  
**Certificate T0918**

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

**Required Courses:**
- EDT 16 Basic CAD and Computer Applications 4.0
- EDT 18 Engineering CAD Applications 4.0
- MFG 10 Mathematics & Blueprint Reading 3.0
- MFG 11 Manufacturing Processes I 2.0
- MFG 12 Manufacturing Processes II 2.0
- MFG 38 MasterCAM I 2.0
- MFG 38B MasterCAM II 2.0
- MFG 85 Manual Computerized Numerical Control (CNC) Programming 2.0
- WELD 40 Introduction to Welding 2.0

**Total Units** 23.0

**Marketing Management**  
**Business Division**  
**Certificate L0510**

Students completing this Marketing Management certificate will have gained practical world business knowledge and experience. In addition, completers of the certificate will have learned to use some of the latest business computer software.

**Required Courses:**
- BUSM 20 Principles of Business 3.0
- BUSM 61 Business Organization and Management 3.0
- BUSS 35 Professional Selling 3.0
- BUSS 36 Principles of Marketing 3.0
- BUSS 50 Retail Store Management and Merchandising 3.0
- BUSS 79 Work Experience in Marketing Management 1.0
- BUSS 85 Special Issues in Marketing 2.0
- CSB 15 Microcomputer Applications 3.5

**Total Units** 21.5

**Mental Health Technology**  
**- Psychiatric Technician**

**Technology and Health Division**  
**Certificate T1279**

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

**Required Courses:**
- MENT 40 Introduction to Interviewing and Counseling 3.0
- MENT 56 Medical-Surgical Nursing for Psychiatric Technicians 9.0
- MENT 56L Medical-Surgical Clinical Experience 4.0
- MENT 58D Advanced Medical-Surgical Nursing and Pharmacology for PT 4.0
- MENT 58L Advanced Medical-Surgical Nursing for Psychiatric Technicians Clinical 1.5
- MENT 70 Introduction to Psychiatric Technology 1.5
- MENT 70L Intro Psy Tech Clinical 2.0
- MENT 72 Nursing Care of the Developmentally Disabled Person 7.0
- MENT 72L Nursing Care of the Developmentally Disabled Person - Clinical 5.5
- MENT 73L Psychiatric Nursing for Psychiatric Technicians Clinical 5.5
- MENT 73T Psychiatric Nursing for Psychiatric Technicians 6.0
- PSYC 1A Introduction to Psychology 3.0
- PSYC 1AH Introduction to Psychology – Honors 3.0

**Total Units** 52.0

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

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

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) 274-7500, ext. 4265. 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) 274-7500, 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.

h) A physical examination, including specific immunizations, and consent/disclaimer for Hepatitis A/8 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 insure that students are in good health and free from communicable disease and able to perform their training functions. Drug testing may also be required as part of this physical examination. Proof of high school graduation and malpractice insurance are required of all candidates upon acceptance.

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

j) All students will be required to pass a background check prior to entering the clinical education phase.

**Selection Procedure:**
In determining eligibility of an applicant, consideration will be given to satisfactory scores on the English Placement Test. The College will make every effort to notify the applicant of acceptance by mail no less than two months prior to the beginning of a program. All applicants are required to meet the Essential Functions for Success in the Mental Health Technology - Psychiatric Technician Program.

**Physical Demands:**
- Perform prolonged, extensive, or considerable standing/walking, lifting, positioning, pushing, and/or transferring patients
- Possess the ability to perform fine motor movements with hands and fingers
- Possess the ability for extremely heavy effort (lift and carry at least 125 pounds)
Programs of Study Leading to a Certificate

**Nursery Management**

**Natural Sciences Division**

**Certificate L0107**

This certificate program is designed to give students basic skills in production and marketing of plants and dry goods in the wholesale and retail nursery industry. All courses are applicable for degree requirements in Ornamental Horticulture, Park and Sports Turf Management, Equipment Technology, and Integrated Pest Management.

**Required Courses:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AGOR 1</td>
<td>Horticultural Science</td>
<td>3.0</td>
</tr>
<tr>
<td>AGOR 2</td>
<td>Plant Propagation/Greenhouse Management</td>
<td>3.0</td>
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<tr>
<td>AGOR 29</td>
<td>Ornamental Plants - Herbaceous</td>
<td>3.0</td>
</tr>
<tr>
<td>AGOR 32</td>
<td>Landscaping and Nursery Management</td>
<td>3.0</td>
</tr>
<tr>
<td>AGOR 50</td>
<td>Soil Science and Management</td>
<td>3.0</td>
</tr>
<tr>
<td>AGOR 64</td>
<td>Landscape Irrigation</td>
<td>3.0</td>
</tr>
<tr>
<td></td>
<td>- Drip and Low Volume</td>
<td></td>
</tr>
</tbody>
</table>

**Total Units** 18.0

**Park Management**

**Natural Sciences Division**

**Certificate L0365**

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.

**Required Courses:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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</thead>
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<td>Park Management</td>
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<td>AGOR 5</td>
<td>Park Facilities</td>
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<tr>
<td>AGOR 51</td>
<td>Tractor and Landscape</td>
<td>3.0</td>
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<tr>
<td></td>
<td>Equipment Operations</td>
<td></td>
</tr>
<tr>
<td>AGOR 62</td>
<td>Landscape Irrigation</td>
<td>3.0</td>
</tr>
<tr>
<td></td>
<td>- Design and Installation</td>
<td></td>
</tr>
<tr>
<td>AGOR 63</td>
<td>Landscape Irrigation</td>
<td>3.0</td>
</tr>
<tr>
<td></td>
<td>Systems Management</td>
<td></td>
</tr>
<tr>
<td>AGOR 75</td>
<td>Urban Arboriculture</td>
<td>3.0</td>
</tr>
</tbody>
</table>

**Total Units** 18.0

**Photography - Level I**

**Arts Division**

**Certificate L0348**

This multi-level certificate program is designed to prepare students for employment in the field of photography. This Photography Level I certificate offers additional electives for students to develop specific skills needed for employment in photography, art, cinema/animation, communications, industrial arts, graphics, and journalism.

**Required Courses:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHOT 10</td>
<td>Basic Digital and Film Photography</td>
<td>3.0</td>
</tr>
<tr>
<td>PHOT 11</td>
<td>Intermediate Photography</td>
<td>4.0</td>
</tr>
<tr>
<td>PHOT 14</td>
<td>Commercial Lighting</td>
<td>3.0</td>
</tr>
<tr>
<td>PHOT 20</td>
<td>Color Photography</td>
<td>3.0</td>
</tr>
<tr>
<td>PHOT 16</td>
<td>Fashion Photography</td>
<td>3.0</td>
</tr>
<tr>
<td>PHOT 18</td>
<td>Portraiture and Wedding Photography</td>
<td>3.0</td>
</tr>
<tr>
<td>ARTC 100</td>
<td>Graphic Design I</td>
<td>3.0</td>
</tr>
<tr>
<td>GRAP 10</td>
<td>Photoshop Imagery</td>
<td>3.0</td>
</tr>
</tbody>
</table>

**Recommended Electives:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AHIS 1</td>
<td>Understanding the Visual Arts</td>
<td>3.0</td>
</tr>
<tr>
<td>ARTB 1</td>
<td>Understanding the Visual Arts</td>
<td>3.0</td>
</tr>
<tr>
<td>PHOT 15</td>
<td>History of Photography</td>
<td>3.0</td>
</tr>
</tbody>
</table>
Programs of Study Leading to a Certificate

Photography Digital Technician
Arts Division
Certificate L0351
This certificate program is designed to give students specific skills to prepare them for employment in the commercial photographic industry as a digital technician, digital assistant, digital imaging specialist, or photography assistant.

Required Courses:
- ARTC 100 Graphic Design I (3.0)
- GRAP 10 Photoshop Imagery (3.0) or
- GRAP 12 Photoshop Imagery Extended (3.0) or
- ARTC 220 Graphic Design IV (3.0)
- PHOT 10 Basic Digital and Film Photography (3.0)
- PHOT 11 Intermediate Photography (4.0)
- PHOT 14 Commercial Lighting (3.0)
- PHOT 20 Color Photography (3.0)

Total Units: 19.0

Recommended Electives:
- CIS 16 Macintosh Applications (2.0)
- PHOT 1 Laboratory Studies: Black and White Photography (1.0)
- PHOT 29 Studio Business Practices for Commercial Artists (3.0)

Total Units: 20.5

Public Works/Landscape Management
Natural Sciences Division
Certificate B0120
This program is a partnership between Mt. San Antonio College and Citrus College, with course requirements that must be taken at each college. Courses in Public Works are offered through Citrus, while horticulture/landscape courses are offered at Mt. SAC. Upon completion of the requirements, students may apply for and receive a Certificate of Achievement from either of the two colleges.

Required Courses:
- At Citrus College
- PUB 150 Public Works I (3.0)
- PUB 158 Municipal and Urban Tree Care (3.0)

Total Units: 12.0

Real Estate Broker Certificate
Business Division
Certificate L0532
Prior to taking the California Real Estate Broker’s License Exam, the applicant must have completed five (5) required courses: Legal Aspects of Real Estate (BUSR 51), Real Estate Practice (BUSR 52), Real Estate Finance (BUSR 53), Real Estate Appraisal (BUSR 81) and either Real Estate Economics (BUSR 55) or Fundamentals of Accounting (BUSA 11). In addition, the applicant must take three (3) additional courses approved by the California Department of Real Estate: Real Estate Principles (BUSR 50), Income Tax Aspects of Real Estate (BUSR 500), Real Estate Law (BUSR 510), and Real Estate Law (BUSR 511).
The School Age Child-Specialization Certificate provides specialized skills and knowledge for working with school age children. This certificate exceeds the Title 22 requirements for a fully qualified teacher in school age programs. This skill set also prepares the student for positions as elementary tutors or classroom aides in public school districts.

Required Courses:
- CHLD 1 Child, Family, School and Community 3.0
- CHLD 5 Principles and Practices in Child Development Programs 3.0
- CHLD 6 Survey of Child Development 3.0
- CHLD 10 Child Growth and Lifespan Development 3.0
- CHLD 10H Child Growth and Lifespan Development - Honors 3.0
- CHLD 11 Child and Adolescent Development 3.0
- CHLD 50 Teaching in a Diverse Society 3.0
- CHLD 51 Early Literacy in Child Development 3.0
- CHLD 62 Music and Motor Development for Young Children 3.0
- CHLD 64 Health, Safety and Nutrition of Children 3.0
- CHLD 74 Program Planning for the School Age Child 3.0

Required Electives:
PLUS select one (1) course:
- LERN 49 Math Skills Review 3.0
- or MATH 50 Pre-Algebra 3.0

PLUS select one (1) course:
- ENGL 64 Writing Effective Sentences 1.0
- ENGL 65 Grammar Review 1.0
- LIT 40 Children’s Literature 3.0

Total Units 31.0 - 33.0

The Mt. San Antonio College Interpreter Training Program is designed to prepare individuals for careers as Sign Language Interpreters. Interpreters are needed wherever communication happens between the hearing community and the Deaf and hard-of-hearing community. There are an endless number of settings in which this communication takes place. Interpreters are employed by school districts, cruise ship companies, corporations, government agencies, hospitals, colleges and universities, and a vast number of other organizations and private businesses.

Program Preparation: Preparation for the program includes fluency in American Sign Language demonstrated by the completion of SIGN 104, American Sign Language 4, (or the equivalent skill) and English fluency demonstrated by the completion of ENGL 1A.

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

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

Required Courses:
- SIGN 105 American Sign Language 5 4.0
- SIGN 108 Fingerspelling 2.0
- SIGN 201 Introduction to Deaf Studies 3.0
- SIGN 202 American Deaf Culture 3.0
- SIGN 210 American Sign Language Structure 3.0
- SIGN 220 Translation: American Sign Language/English 3.0
- SIGN 223 Principles of Interpreting 3.0
- SIGN 225 Ethical Decision Making for Interpreters 2.0

Total Units 42.0 - 42.5

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 in Ornamental Horticulture, Park and Sports Turf Management, Equipment Technology, and Integrated Pest Management.

Required Courses:
- AGOR 24 Integrated Pest Management 3.0
- AGOR 39 Turf Grass Production and Management 3.0
- AGOR 40 Sports Turf Management 3.0
- AGOR 50 Soil Science and Management 3.0
- AGOR 62 Landscape Irrigation - Design and Installation 3.0
- AGOR 63 Landscape Irrigation Systems Management 3.0

Total Units 18.0
Programs of Study Leading to a Certificate

Television Crew
Art Division
Certificate L0354
The Certificate of Achievement in Television Crew will provide students with experience in a variety of production roles and technologies. This course of study is designed to prepare students for entry level jobs in a variety of areas.

Required Courses:
- R-TV 19A Beginning Video Production 3.0
- R-TV 19B Advanced Video Production 3.0
- R-TV 20 Television News Production 3.0
- R-TV 21 Remote Multicamera Production 3.0
- R-TV 22 Editing for Film and Television 3.0
- R-TV 100 Work Experience in Film and TV 1.0
Total Units 19.0

Tree Care and Maintenance
Natural Sciences Division
Certificate L0111
This certificate program is designed to give students basic skills in the repair and maintenance of trees. All courses are applicable for degree requirements in Ornamental Horticulture, Park and Sports Turf Management, Equipment Technology, and Integrated Pest Management.

Required Courses:
- AGOR 1 Horticultural Science 3.0
- AGOR 24 Integrated Pest Management 3.0
- AGOR 30 Ornamental Plants - Trees and Woody Shrubs 3.0
- AGOR 50 Soil Science and Management 3.0
- AGOR 51 Tractor and Landscape Equipment Operations 3.0
- AGOR 75 Urban Arboriculture 3.0
Total Unit 18.0

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

Required Courses:
- ANIM 172 Motion Graphics, Compositing and Visual Effects 3.0
- ART 100 Graphic Design I 3.0
- ART 120 Graphic Design II 3.0
- ART 160 Typography 3.0
- ART 200 Web Design 3.0
- ART 220 Graphic Design IV 3.0
- ART 240 Multimedia Design 3.0
- ARTD 20 Design: Two-Dimensional 3.0
Total Units 24.0

Welder - Automotive Welding, Cutting & Modification
Technology and Health Division
Certificate T0931
Prepares students for entry-level employment as a licensed welder with additional skills development and theory in automotive welding, cutting and modification. Coursework prepares students for industry licensing with emphasis on competencies required for certification in structural steel welding and specialty skills in automotive welding.

Required Courses:
- WELD 40 Introduction to Welding 2.0
- WELD 50 Oxyacetylene Welding 2.0
- WELD 51 Basic Electric Arc Welding 2.0
- WELD 53A Welding Metallurgy 3.0
- WELD 60 Print Reading and Computations for Welders 3.0
- WELD 70A Beginning Arc Welding 3.0
- WELD 70B Intermediate Arc Welding 3.0
- WELD 70C Certification for Welders 3.0
- WELD 80 Construction Fabrication and Welding 3.0
- WELD 81 Pipe and Tube Welding 3.0
- WELD 90A Gas Tungsten Arc Welding 3.0
Total Units 30.0
Note: Any higher level welding courses may be substituted for WELD 40.

Welder - Gas Tungsten Arc Welding
Technology and Health Division
Certificate T0932
Prepares students for entry-level employment as a licensed welder with additional skills development and theory in gas tungsten ARC welding. Coursework prepares students for industry licensing with emphasis on competencies required for certification in aluminum, CRES, mild steel and selected exotic metals with specialty skills in gas tungsten ARC welding.

Required Courses:
- WELD 40 Introduction to Welding 2.0
- WELD 50 Oxyacetylene Welding 2.0
- WELD 51 Basic Electric Arc Welding 2.0
- WELD 53A Welding Metallurgy 3.0
- WELD 60 Print Reading and Computations for Welders 3.0
- WELD 70A Beginning Arc Welding 3.0
- WELD 70B Intermediate Arc Welding 3.0
- WELD 70C Certification for Welders 3.0
- WELD 80 Construction Fabrication and Welding 3.0
- WELD 81 Pipe and Tube Welding 3.0
- WELD 90A Gas Tungsten Arc Welding 3.0
Total Units 30.0
Note: Any higher level welding courses may be substituted for WELD 40.

Welder -Licensed
Technology and Health Division
Certificate L0930
This program is designed to prepare students for entry-level employment in the broad field of welding, including manufacturing construction, fabrication and repair. Through theoretical and hands-on skills coursework students prepare for industry licensing with 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.

Required Courses:
- WELD 40 Introduction to Welding 2.0
- WELD 50 Oxyacetylene Welding 2.0
- WELD 51 Basic Electric Arc Welding 2.0
- WELD 53A Welding Metallurgy 3.0
- WELD 60 Print Reading and Computations for Welders 3.0
- WELD 70A Beginning Arc Welding 3.0
- WELD 70B Intermediate Arc Welding 3.0
- WELD 70C Certification for Welders 3.0
- WELD 80 Construction Fabrication and Welding 3.0
- WELD 81 Pipe and Tube Welding 3.0
- WELD 90B Semiautomatic Arc Welding Process 3.0
Total Units 30.0
Note: Any higher level welding courses may be substituted for WELD 40.
SECTION EIGHT

Programs of Study Leading to an Associate Degree

Committed to Student Success
PROGRAMS OF STUDY LEADING TO AN ASSOCIATE DEGREE

Mt. San Antonio College offers both Associate in Science (A.S.) and Associate in Arts (A.A.) degrees. In general, the Associate in Science degrees are two-year occupational degrees that prepare students for a variety of career and technical fields. The Associate in Arts degrees, while not intended specifically for transfer, are two-year degrees in Liberal Arts and Sciences that provide for broad exploration of a specific area of emphasis. In many cases and with appropriate academic advising, students obtaining the Associate in Arts degree will find that they have a solid foundation for further postsecondary study should they wish to transfer at a later date. The Associate in Arts for Transfer and Associate in Science for Transfer degrees are designed to provide students with a seamless transition for transfer with junior standing somewhere in the CSU system.

GENERAL REQUIREMENTS FOR AN ASSOCIATE DEGREE

Application for Graduation

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

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

Fall: deadline to apply for fall graduation is the end of the ninth week.
Winter: deadline to apply for winter graduation is the end of the ninth week of the fall semester.
Spring: deadline to apply for spring graduation is the end of the ninth week.
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 section for specific deadline dates for any given semester. Applications received after the deadline will be processed with the next graduation cycle. Students may apply for graduation one semester prior to completing all required coursework. Once the degree has been conferred, the degree will be posted to the student’s academic record and will appear on the transcript. Students will also receive their diplomas in the mail thereafter. If a student is denied graduation, he or she will be informed in writing.

Multiple degrees

The Associate in Science degree shall be awarded to those graduates who majored in one of the occupational programs at Mt. San Antonio College. Students may be awarded both an Associate in Science degree and an Associate in Arts degree with the 60 units required for an Associate degree if they have met the requirements for both within the 60 units of earned credit. Each additional degree requires 18 units of course work beyond the 60 units required for the first degree(s), and must include the satisfactory completion of all the required courses in the additional major. Students awarded additional degrees must meet or complete the current general education requirements in effect at the time of re-entry.

Residency Requirement

The Residency Requirement for Mt. San Antonio College can be met in either of two ways:
1. 12 units in residence and enrollment in the last semester, or 45 units in residence if the last semester is not at Mt. SAC.

GENERAL EDUCATION REQUIREMENTS

Philosophy Statement

General education is the distinguishing feature of higher education. It is a broadly-based core of humanistic knowledge and abilities, the acquisition of which is the distinctive characteristic of the educated person. General education courses emphasize the ability to reason, to examine issues from different perspectives, to challenge authority, and to communicate ideas logically and confidently. They instill open-mindedness, respect for differences among people, and knowledge of self. By exposing students to different fields of study, general education courses provide an understanding of the human condition and of human accomplishments and encourage a lifelong interest in learning. Together with other Mt. San Antonio College degree requirements, the general education component of the associate degree prepares students to:
- transfer to and function successfully in a baccalaureate degree-granting institution;
- enter the work force as a competent, productive citizen;
- live a richer, more rewarding life.
General education courses are not primarily skills-based, nor are they limited to, or more appropriate for, majors in a specialized field of study. Courses that fulfill general education requirements must:
1. Require post-secondary level skills in reading, writing, quantitative reasoning, and critical thinking.

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

GRADUATION REQUIREMENTS FOR 2014 15

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

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

General Education Requirements: At least 24 units are required which shall include courses in each of the General Education areas, A through E (see pages 65-66). All courses must be completed with a grade of “C” or better.

Physical Well-Being Requirement: Complete at least one of the physical education activity courses with the following prefixes: DANCE, KINA, KINF, KINL, KINS, KINX 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 or obtaining placement into READ 100 on Reading Placement exam or obtaining a satisfactory score on the Reading Competency Test.

Math Competency: This requirement is met by completing one of the following with a grade of “C” or better.
2. Completing a more advanced college level mathematics course.
3. Obtaining a satisfactory score on the Intermediate Algebra Competency Examination.

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

Residency Requirement: The residency requirement for Mt. San Antonio College can be met in either of two ways:
1. 12 units in residence and enrollment in last semester, or 45 units in residence if the last semester is not at Mt. SAC.

Additional Requirements for the Associate in Science degree:

Students must complete all required courses in an approved occupational major with a minimum grade of “C” in all course. See pages 68-91 for listings of the Associate in Science degree majors.

Additional Requirements for the Associate in Arts degree:

Students must complete a pattern of 18 or more units from the courses identified within a specific area of emphasis with a minimum grade of “C” in all courses. See pages 91-97 for listings of the Associate in Arts Degree in Liberal Arts & Sciences with areas of emphasis.
### Programs of Study Leading to an Associate Degree

2. Improve students’ abilities to:
   - communicate oral and written ideas effectively;
   - 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, ethical citizens;
   - acquire the curiosity and skills essential for lifelong learning.

3. Impart understanding, knowledge, and appreciation of:
   - our shared scientific, technological, historical, and artistic heritage, including the contributions of women, ethnic minorities, and non-Western cultures;
   - the Earth's ecosystem, including the processes that formed it and the strategies that are necessary for its maintenance;
   - human social, political, and economic institutions and behavior, including their interrelationships;
   - the psychological, social, and physiological dimensions of men and women as individuals and as members of society.

Courses that fulfill general education requirements must fall into one of the content categories listed below:

| A. Communication and Critical Thinking |
| B. Science and Mathematics |
| C. Arts and Humanities |
| D. Social Sciences |
| E. Lifelong Understanding and Self-Development |

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

#### A. Communication and Critical Thinking

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

- provide understanding of the psychological and social significance of communication;
- illustrate how communication operates in various situations;
- focus on communication from the rhetorical perspective: reasoning, advocacy, organization, accuracy; the discovery, critical evaluation, and reporting of information; reading, listening, speaking, and writing effectively;
- provide active participation and practice in written and oral communication.

#### B. Science and Mathematics

These courses impart knowledge about living and non-living systems, and mathematical concepts and quantitative reasoning with applications. Courses fulfilling this requirement:

- promote understanding and appreciation of the methodologies and tools of science;
- emphasize the influence of scientific knowledge on the development of civilization;
- impart appreciation and understanding of basic concepts, not just skills;
- offer specific inquiry into mathematical concepts, quantitative reasoning and application. (See Mt. SAC degree competency requirements.)

#### C. Humanities

These courses cultivate intellect, imagination, sensibility and sensitivity. They encourage students to respond subjectively as well as objectively and to develop a sense of the integrity of emotional and intellectual responses. Courses fulfilling this requirement:

- study great work of the human imagination;
- increase awareness and appreciation of the traditional humanistic disciplines such as art, dance, drama, literature, and music;
- impart an understanding of the interrelationship between creative art, the humanities, and the self;
- provide exposure to both Western and non-Western cultures;
- may include a foreign language course that contains a cultural component as opposed to a course that focuses solely on skills acquisition.

#### D. Social Sciences

These courses explore, at the micro and macro-level, the social, political, and economic institutions that underpin society. Courses fulfilling these requirements:

- promote understanding and appreciation of social, political, and economic institutions;
- probe the relationship between these institutions and human behavior;
- examine these institutions in both their historical and contemporary context;
- include the role of, and impact on, non-white ethnic minorities and women;
- include both Western and non-Western settings.

#### E. Lifelong Understanding and Self-Development

These courses facilitate an understanding of human beings as integrated physiological, social and psychological organisms. Courses fulfilling this requirement:

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

### GENERAL EDUCATION OUTCOMES (GEOS)

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

### PROGRAM AND COURSE STUDENT LEARNING OUTCOMES (SLOS)

Program and course student learning outcomes are statements that define the knowledge, skills, and perspectives acquired by students who satisfy program and course requirements. It is through the assessment of SLOs that the curriculum will be evaluated for improvements. SLOs will be assessed by faculty who teach courses and oversee programs. The SLOs can be found at [http://www.mtsac.edu/instruction/outcomes/sloinfo.html](http://www.mtsac.edu/instruction/outcomes/sloinfo.html)

Adapted from CSU Executive Order 595 and Title 5 Section 40405.1
### GENERAL EDUCATION REQUIREMENTS FOR 2014-15

#### AREA A:
**Communication in the English Language (6 units):**
Select one (1) course from the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 1A</td>
<td>Freshman Composition</td>
</tr>
<tr>
<td>ENGL 1AH</td>
<td>Freshman Composition – Honors</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASTR 5</td>
<td>Introduction to Astronomy</td>
</tr>
<tr>
<td>ASTR 5H</td>
<td>Introduction to Astronomy – Honors</td>
</tr>
<tr>
<td>ASTR 5L</td>
<td>Astronomical Observing Laboratory</td>
</tr>
<tr>
<td>ASTR 7</td>
<td>Geology of the Solar System</td>
</tr>
<tr>
<td>ASTR 8</td>
<td>Introduction to Stars, Galaxies, and the Universe</td>
</tr>
<tr>
<td>CHEM 10</td>
<td>Chemistry for Allied Health Majors</td>
</tr>
<tr>
<td>CHEM 20</td>
<td>Introductory Organic Chemistry and Biochemistry</td>
</tr>
<tr>
<td>CHEM 40</td>
<td>Introduction to General Chemistry</td>
</tr>
<tr>
<td>CHEM 50</td>
<td>General Chemistry I</td>
</tr>
<tr>
<td>CHEM 50H</td>
<td>General Chemistry I – Honors</td>
</tr>
<tr>
<td>CHEM 51</td>
<td>General Chemistry II</td>
</tr>
<tr>
<td>GEOG 1</td>
<td>Elements of Physical Geography</td>
</tr>
<tr>
<td>GEOG 1H</td>
<td>Elements of Physical Geography – Honors</td>
</tr>
<tr>
<td>GEOG 1L</td>
<td>Physical Geography Laboratory</td>
</tr>
<tr>
<td>GEOG 1LH</td>
<td>Physical Geography Laboratory – Honors</td>
</tr>
<tr>
<td>GEOL 1</td>
<td>Physical Geology</td>
</tr>
<tr>
<td>GEOL 7</td>
<td>Geology of California</td>
</tr>
<tr>
<td>GEOL 8</td>
<td>Earth Science</td>
</tr>
<tr>
<td>GEOL 8H</td>
<td>Earth Science – Honors</td>
</tr>
<tr>
<td>GEOL 8L</td>
<td>Earth Science Laboratory</td>
</tr>
<tr>
<td>GEOL 9</td>
<td>Environmental Geology</td>
</tr>
<tr>
<td>GEOL 10</td>
<td>Natural Disasters</td>
</tr>
<tr>
<td>METO 3</td>
<td>Weather and the Atmospheric Environment</td>
</tr>
<tr>
<td>METO 3L</td>
<td>Weather and the Atmospheric Environment Laboratory</td>
</tr>
</tbody>
</table>

#### AREA C:
**Arts and Humanities (6 units):**
Select two (2) courses, six (6) units minimum, with at least one (1) course from the Arts and one (1) from Humanities:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
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<tbody>
<tr>
<td>OCEA 10</td>
<td>Introduction to Oceanography</td>
</tr>
<tr>
<td>OCEA 10H</td>
<td>Introduction to Oceanography – Honors</td>
</tr>
<tr>
<td>OCEA 10L</td>
<td>Introduction to Oceanography Laboratory</td>
</tr>
<tr>
<td>PHSC 3</td>
<td>Energy Science</td>
</tr>
<tr>
<td>PHSC 7</td>
<td>Physical Science</td>
</tr>
<tr>
<td>PHSC 7L</td>
<td>Physical Science Laboratory</td>
</tr>
<tr>
<td>PHYS 1</td>
<td>Physics</td>
</tr>
<tr>
<td>PHYS 2AG</td>
<td>General Physics</td>
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<td>PHYS 2BG</td>
<td>General Physics</td>
</tr>
<tr>
<td>PHYS 4A</td>
<td>Engineering Physics</td>
</tr>
<tr>
<td>PHYS 4B</td>
<td>Engineering Physics</td>
</tr>
<tr>
<td>PHYS 4C</td>
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#### HUMANITIES
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- ARA 2: Continuing Elementary Arabic
- CHIN 1: Elementary Chinese
- CHIN 2: Continuing Elementary Chinese
- CHIN 3: Intermediate Chinese
- CHIN 4: Continuing Intermediate Chinese

**English:**
- ENGL 1B: English – Introduction to Literary Types
- ENGL 1BH: English – Introduction to Literary Types – Honors

**French:**
- 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

**German:**
- GERM 1: Elementary German
- GERM 2: Continuing Elementary German
- GERM 3: Intermediate German

**History:**
- *HIST 1: History of the United States to 1877 – Honors
- *HIST 3: History of the United States to 1877 – Honors
- *HIST 3H: History of the United States to 1877 – Honors
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- *HIST 8H: History of the United States to 1877 – Honors
- *HIST 10: History of Premodern Asia
- *HIST 11: History of Modern Asia
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- *HIST 31: History of the African American
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- *HIST 35: History of Africa
- *HIST 36: Women in American History
- *HIST 39: California History
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<tr>
<td>Ornamental Horticulture .......................................... 83</td>
</tr>
<tr>
<td>Park &amp; Sports Turf Management .................................. 84</td>
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<tr>
<td>Pet Science ............................................................ 84</td>
</tr>
<tr>
<td>Registered Veterinary Technology ............................. 88</td>
</tr>
<tr>
<td>Technology &amp; Health Division ....................................</td>
</tr>
<tr>
<td>Air Conditioning and Refrigeration .......................... 68</td>
</tr>
<tr>
<td>Airframe and Aircraft Powerplant ............................. 68</td>
</tr>
<tr>
<td>Airframe and Aircraft Powerplant – Day .................... 68</td>
</tr>
<tr>
<td>Airframe and Aircraft Powerplant – Evening ............... 68</td>
</tr>
<tr>
<td>Alcohol/Drug Counseling ........................................ 69</td>
</tr>
<tr>
<td>Architectural Technology ........................................ 69</td>
</tr>
<tr>
<td>Architectural Technology – Design Concentration ....... 70</td>
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<tr>
<td>Architectural Technology – Technology Concentration 71</td>
</tr>
<tr>
<td>Aviation Science .................................................... 71</td>
</tr>
<tr>
<td>Building Automation ............................................... 71</td>
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<tr>
<td>Commercial Flight .................................................... 72</td>
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<tr>
<td>Computer and Networking Technology ...................... 72</td>
</tr>
<tr>
<td>Construction Inspection .......................................... 74</td>
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<tr>
<td>Correctional Sciences ............................................. 74</td>
</tr>
<tr>
<td>Electronics and Computer Engineering ........................</td>
</tr>
<tr>
<td>Law Enforcement .................................................... 79</td>
</tr>
<tr>
<td>Marketing Management ............................................ 81</td>
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<tr>
<td>Marketing Strategy .................................................. 83</td>
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<tr>
<td>Paralegal/Legal Assistant ........................................ 84</td>
</tr>
<tr>
<td>Real Estate ............................................................ 88</td>
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<tr>
<td>Small Business Management ..................................... 90</td>
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<tr>
<td>Manufacturing Technology ....................................... 77</td>
</tr>
<tr>
<td>Medical Technology ................................................ 81</td>
</tr>
<tr>
<td>Mental Health Technology ........................................ 81</td>
</tr>
<tr>
<td>Psychiatric Technician to RN ..................................... 85</td>
</tr>
<tr>
<td>Radiologic Technology ............................................. 87</td>
</tr>
<tr>
<td>Respiratory Therapy ................................................ 89</td>
</tr>
<tr>
<td>Welding ................................................................. 91</td>
</tr>
</tbody>
</table>
**Programs of Study Leading to an Associate Degree**

**Accounting**

**Business Division**

**Degree S0502**

The Accounting Program provides many opportunities for students to design a plan for their individual goals through certificate and degree achievements. The associate degree in accounting is intended to prepare students for employment following graduation. The student will learn basic accounting skills combined with an in-depth training in a variety of accounting concepts, preparing the student for entry-level positions, professional advancement in their current job or transfer to a university to pursue a bachelor’s degree in accounting.

Earning an Accounting Associate of Science degree will provide the knowledge and skills necessary for accounting jobs in general accounting, cost accounting, payroll, inventory management, asset management, accounts receivable, accounts payable, budgets and forecasting, financial analysis, etc. Students who wish to transfer and obtain a bachelor’s degree should consult with a counselor or advisor to discuss transferability of courses.

**Required Courses:**

- BUSO 5  Business English  3.0
- BUSO 25  Business Communications  3.0
- CISB 15  Microcomputer Applications  3.5
- CISB 21  Microsoft Excel  3.0
- CISB 31  Microsoft Word  3.0
- CISB 51  Microsoft PowerPoint  3.0
- CISI 11  Computer Keyboarding  3.0
- CISI 41  Office Management Skills  3.0

**Select one (1) course from: (2-3.5 Units)**

- BUSO 26  Oral Communications for Business  3.0
- CISB 16  Macintosh Applications  2.0
- CISB 61  Desktop Publishing Software  3.0
- CISW 15  Web Site Development  3.5

**Total Units** 26.5 - 28.0

**Agri-Technology**

**Natural Sciences Division**

**Degree S0101**

The program of courses in Agriculture is designed to enable students to prepare for a career in this essential and diverse profession. The department offers a comprehensive Agricultural Sciences program and is unique in that most courses provide hands-on experiences designed to give the students a combination of practical skills and technical knowledge.

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 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.

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

**Required Courses:**

- AGAG 1  Food Production, Land Use  3.0
- AGAN 91  Agricultural Calculations  3.0
- AGAN 1  Animal Science  3.0
- AGOR 1  Horticultural Science  3.0
- AGOR 32  Landscaping  3.0
- AGOR 56  Engine Diagnostics  3.0
- AGOR 71  Landscape Construction Fundamentals  3.0

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

- AGLI 14  Swine Production  3.0
- AGLI 16  Horse Production and Management  4.0
- AGLI 17  Sheep Production  3.0
- AGLI 30  Beef Production  3.0
- AGOR 24  Integrated Pest Management  3.0
- AGOR 62  Landscape Irrigation  3.0
- AGOR 86  Design and Installation  3.0
- AGPE 70  Pet Shop Management  3.0
- AGPE 71  Canine Management  3.0

**Total Units** 30.0 - 31.0

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

**Technology and Health Division**

**Degree S0911**

This program prepares students to enter employment as a certified airframe and powerplant technician in the aircraft maintenance industry. Training is given in the overhaul of various airframes and powerplants and their components. Completion of this program leads to an Associate in Science degree. Two state-awarded certificates are also available upon successful completion of this program – on 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 or evening 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.

### 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>13.0</td>
</tr>
<tr>
<td>AIRM 65B</td>
<td>Aircraft Powerplant Maintenance Technology - Turbine</td>
<td>13.0</td>
</tr>
<tr>
<td>AIRM 66A</td>
<td>Aircraft Airframe Maintenance Technology - Structures</td>
<td>13.0</td>
</tr>
<tr>
<td>AIRM 66B</td>
<td>Aircraft Airframe Maintenance Technology - Systems</td>
<td>13.0</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>
<tr>
<td>AIRM 72</td>
<td>Aircraft Materials and Processes</td>
<td>1.5</td>
</tr>
<tr>
<td>AIRM 73</td>
<td>Aircraft Welding</td>
<td>1.5</td>
</tr>
<tr>
<td>AIRM 90A</td>
<td>Airframe Maintenance Technology</td>
<td>3.0</td>
</tr>
<tr>
<td>AIRM 90B</td>
<td>Airframe Maintenance Technology - Structure and Design</td>
<td>3.0</td>
</tr>
<tr>
<td>AIRM 91A</td>
<td>Airframe Maintenance Technology</td>
<td>3.0</td>
</tr>
<tr>
<td>AIRM 91B</td>
<td>Airframe Maintenance Technology - Aluminum Repair</td>
<td>3.0</td>
</tr>
<tr>
<td>AIRM 92A</td>
<td>Airframe Maintenance Technology - Hydraulics &amp; Pneu</td>
<td>3.0</td>
</tr>
<tr>
<td>AIRM 92B</td>
<td>Airframe Maintenance Technology - Systems</td>
<td>3.0</td>
</tr>
<tr>
<td>AIRM 93A</td>
<td>Airframe Maintenance Technology</td>
<td>3.0</td>
</tr>
<tr>
<td>AIRM 93B</td>
<td>Airframe Maintenance Technology</td>
<td>3.0</td>
</tr>
<tr>
<td>AIRM 94A</td>
<td>Airframe 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 - Reciprocating Engines</td>
<td>3.0</td>
</tr>
<tr>
<td>AIRM 96A</td>
<td>Aircraft Powerplant Maintenance Technology - Turbine Engines</td>
<td>3.0</td>
</tr>
<tr>
<td>AIRM 96B</td>
<td>Aircraft Powerplant Maintenance Technology - Propellers</td>
<td>3.0</td>
</tr>
<tr>
<td>AIRM 97A</td>
<td>Aircraft Powerplant Maintenance Technology - Instrumentation</td>
<td>3.0</td>
</tr>
<tr>
<td>AIRM 97B</td>
<td>Aircraft Powerplant Maintenance Technology - Fuel Meter Systems</td>
<td>3.0</td>
</tr>
<tr>
<td>AIRM 98A</td>
<td>Aircraft Powerplant Maintenance Technology - Ignition Systems</td>
<td>3.0</td>
</tr>
<tr>
<td>AIRM 98B</td>
<td>Aircraft Powerplant Maintenance Technology - Lubricating Systems</td>
<td>3.0</td>
</tr>
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### Total Units: **67.0**

### 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>2.0</td>
</tr>
<tr>
<td>AIRM 80</td>
<td>Lab Studies in Aircraft Maintenance Technology</td>
<td>0.5</td>
</tr>
<tr>
<td>PHYS 1</td>
<td>Physics</td>
<td>4.0</td>
</tr>
</tbody>
</table>

### Alcohol/Drug Counseling

#### Technology and Health Division

**Degree S2101**

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

### Required Courses:

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

### Required skill courses:

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

### Required field work courses:

<table>
<thead>
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<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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<tbody>
<tr>
<td>AD 13</td>
<td>Internship/Seminar</td>
<td>4.0</td>
</tr>
<tr>
<td>AD 14</td>
<td>Advanced Internship/Seminar</td>
<td>4.0</td>
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### Select two (2) courses from:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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<tbody>
<tr>
<td>CHLD 10</td>
<td>Child Growth and Lifespan Development</td>
<td>3.0</td>
</tr>
<tr>
<td>or</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PSYC 1A</td>
<td>Child Growth and Lifespan Development - Honors</td>
<td>3.0</td>
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<tr>
<td>or</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PSYC 1AH</td>
<td>Introduction to Psychology - Honors</td>
<td>3.0</td>
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<td>or</td>
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<td></td>
</tr>
<tr>
<td>PSYC 19</td>
<td>Abnormal Psychology</td>
<td>3.0</td>
</tr>
<tr>
<td>SOC 1</td>
<td>Sociology</td>
<td>3.0</td>
</tr>
<tr>
<td>or</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SOC 11</td>
<td>Sociology – Honors</td>
<td>3.0</td>
</tr>
<tr>
<td>SOC 14</td>
<td>Marriage and the Family</td>
<td>3.0</td>
</tr>
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</table>
### Programs of Study Leading to an Associate Degree

#### Animation

**Arts Division**

**Degree S1006**

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

**Required Courses:**

<table>
<thead>
<tr>
<th>Code</th>
<th>Course Name</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>ANIM 101A</td>
<td>Drawing - Gesture and Figure</td>
<td>3.0</td>
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<tr>
<td>ANIM 104</td>
<td>Drawing Fundamentals</td>
<td>3.0</td>
</tr>
<tr>
<td>ARTD 15A</td>
<td>Drawing: Beginning</td>
<td>3.0</td>
</tr>
<tr>
<td>ARTD 108</td>
<td>Principles of Animation</td>
<td>3.0</td>
</tr>
<tr>
<td>ARTD 115</td>
<td>Storyboarding</td>
<td>3.0</td>
</tr>
<tr>
<td>ARTD 116</td>
<td>Character Development</td>
<td>1.5</td>
</tr>
<tr>
<td>ARTD 130</td>
<td>Introduction to 3-D Computer Animation</td>
<td>3.0</td>
</tr>
<tr>
<td>ARTC 290</td>
<td>Portfolio</td>
<td>3.0</td>
</tr>
<tr>
<td>ARTC 100</td>
<td>Graphic Design I</td>
<td>3.0</td>
</tr>
<tr>
<td>ARTD 17A</td>
<td>Drawing: Life</td>
<td>3.0</td>
</tr>
<tr>
<td>ARTD 20</td>
<td>Design: Two-Dimensional</td>
<td>3.0</td>
</tr>
<tr>
<td>ARTS 22</td>
<td>Design: Three-Dimensional</td>
<td>3.0</td>
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</table>

**PLUS select one course from:**

<table>
<thead>
<tr>
<th>Code</th>
<th>Course Name</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>ARTD 119</td>
<td>Advanced Principles of Animation</td>
<td>3.0</td>
</tr>
<tr>
<td>ARTD 117</td>
<td>Animation Background Layout</td>
<td>3.0</td>
</tr>
<tr>
<td>ARTD 120</td>
<td>Script Development for Animation</td>
<td>3.0</td>
</tr>
<tr>
<td>ARTD 131</td>
<td>Introduction to Gaming</td>
<td>3.0</td>
</tr>
<tr>
<td>ARTD 132</td>
<td>Modeling, Texture Mapping and Lighting</td>
<td>3.0</td>
</tr>
<tr>
<td>ANIM 172</td>
<td>Motion Graphics, Compositing and Visual Effects</td>
<td>3.0</td>
</tr>
<tr>
<td>ANIM 175</td>
<td>Web Animation With Flash</td>
<td>3.0</td>
</tr>
<tr>
<td>ARTD 16</td>
<td>Drawing: Perspective</td>
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**Total Units 34.5**

**Recommended Electives:**

<table>
<thead>
<tr>
<th>Code</th>
<th>Course Name</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AHIS 4</td>
<td>History of Western Art: Prehistoric Through Gothic</td>
<td>3.0</td>
</tr>
</tbody>
</table>

#### Applied Laboratory Science Technology (ALST)

**Natural Sciences Division**

**Degree S0307**

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

**Required Courses:**

<table>
<thead>
<tr>
<th>Code</th>
<th>Course Name</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUSM 10</td>
<td>Principles of Continuous Quality Improvement</td>
<td>3.0</td>
</tr>
<tr>
<td>CHEM 20</td>
<td>Introductory Organic and Biochemistry</td>
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</tr>
<tr>
<td>CHEM 50</td>
<td>General Chemistry I</td>
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</tr>
<tr>
<td>CHEM 50H</td>
<td>General Chemistry I - Honors</td>
<td>5.0</td>
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<tr>
<td>CHEM 51</td>
<td>General Chemistry II</td>
<td>5.0</td>
</tr>
<tr>
<td>CHEM 60</td>
<td>Quantitative Chemical Analysis</td>
<td>5.0</td>
</tr>
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</table>

**PLUS select (6-7) six or seven units from:**

<table>
<thead>
<tr>
<th>Code</th>
<th>Course Name</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MICR 22</td>
<td>Microbiology</td>
<td>4.0</td>
</tr>
<tr>
<td>PHIL 12</td>
<td>Ethics</td>
<td>3.0</td>
</tr>
<tr>
<td>PHIL 12H</td>
<td>Ethics - Honors</td>
<td>3.0</td>
</tr>
<tr>
<td>SPCH 26</td>
<td>Interpersonal Communication</td>
<td>3.0</td>
</tr>
<tr>
<td>SPCH 26H</td>
<td>Interpersonal Communication - Honors</td>
<td>3.0</td>
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</tbody>
</table>

**Total Units 29.0 - 30.0**

#### Architectural Technology

**- Design Concentration**

**Technology and Health Division**

**Degree S0207**

This program prepares students to enter the field of architecture and related areas. The student is provided with an option of direct employment into the field or preparation for transfer to the professional school of architecture. Two concentrations are available. The Design Concentration focuses upon studio-based design projects, drawing, and presentation skills. The student will develop a portfolio of work relevant to their Concentration. A certificate program is also available.

**Required Courses:**

<table>
<thead>
<tr>
<th>Code</th>
<th>Course Name</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARCH 10</td>
<td>Design I - Elements of Design</td>
<td>3.0</td>
</tr>
<tr>
<td>ARCH 11</td>
<td>Architectural Drawing</td>
<td>3.0</td>
</tr>
<tr>
<td>ARCH 12</td>
<td>Architectural Materials and Specifications</td>
<td>4.0</td>
</tr>
<tr>
<td>ARCH 13</td>
<td>Architectural Illustration</td>
<td>3.0</td>
</tr>
<tr>
<td>ARCH 16</td>
<td>Basic CAD and Computer Application</td>
<td>4.0</td>
</tr>
<tr>
<td>ARCH 21</td>
<td>Design II - Architectural Design</td>
<td>3.0</td>
</tr>
<tr>
<td>ARCH 23</td>
<td>Architectural Presentations</td>
<td>3.0</td>
</tr>
<tr>
<td>ARCH 27</td>
<td>Design III - Environmental Design</td>
<td>3.0</td>
</tr>
<tr>
<td>ARCH 29</td>
<td>Design IV - Advanced Project</td>
<td>3.0</td>
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<tr>
<td>ARCH 31</td>
<td>World Architecture I</td>
<td>3.0</td>
</tr>
<tr>
<td>ARCH 32</td>
<td>World Architecture II</td>
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**PLUS Select one (1) course from: (3 Units)**

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<tr>
<td>ARCH 15</td>
<td>Architectural Working Drawings I</td>
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</tr>
<tr>
<td>ARCH 18</td>
<td>Architectural CAD and BIM</td>
<td>3.0</td>
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**PLUS Select one (1) course from: (1-3 Units)**

<table>
<thead>
<tr>
<th>Code</th>
<th>Course Name</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARCH 14</td>
<td>Building and Zoning Codes</td>
<td>3.0</td>
</tr>
<tr>
<td>ARCH 15</td>
<td>Architectural Working Drawings I</td>
<td>3.0</td>
</tr>
<tr>
<td>ARCH 18</td>
<td>Architectural CAD and BIM</td>
<td>3.0</td>
</tr>
<tr>
<td>ARCH 26</td>
<td>Architectural CAD Working Drawings</td>
<td>3.0</td>
</tr>
<tr>
<td>ARCH 28</td>
<td>Architectural CAD Illustration and Animation</td>
<td>3.0</td>
</tr>
<tr>
<td>ARCH 89</td>
<td>Architectural Work Experience</td>
<td>1.0</td>
</tr>
</tbody>
</table>

**Recommended Electives:**

<table>
<thead>
<tr>
<th>Code</th>
<th>Course Name</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARTD 15A</td>
<td>Drawing: Beginning</td>
<td>3.0</td>
</tr>
<tr>
<td>ARTD 20</td>
<td>Design: Two-Dimensional</td>
<td>3.0</td>
</tr>
</tbody>
</table>

**Total Units 39.0 - 41.0**
Architectural Technology
- Technology Concentration
Technology and Health Division
Degree S0201
This program prepares students to enter the field of architecture and related areas. The student is provided with an option of direct employment into the field or preparation for transfer to the professional school of architecture. Two concentrations are available. The Technology Concentration focuses upon building and construction technology, documentation, codes, and computer applications. Current technology and computer (CAD) skills are integrated into the program. A certificate program is also available.

**Required Courses:**
- ARCH 10 Design I - Elements of Design 3.0
- ARCH 11 Architectural Drawing 3.0
- ARCH 12 Architectural Materials and Specifications 4.0
- ARCH 14 Building and Zoning Codes 3.0
- ARCH 15 Architectural Drawings I 3.0
- ARCH 16 Basic CAD and Computer Application 4.0
- ARCH 18 Architectural CAD and BIM 3.0
- ARCH 26 Architectural CAD Working Drawings 3.0
- ARCH 28 Architectural CAD Illustration and Animation 3.0
- ARCH 29 Design IV - Advanced Project 3.0
- INS70 Elements of Construction 3.0

**Plus Select one (1) course from: (1-3 Units)**
- ARTS 22 Design: Three-Dimensional 3.0
- BIOL 6 Humans and the Environment 3.0
- ENGL 1C Critical Thinking and Writing 4.0
- MATH 150 Trigonometry 3.0
- PHYS 2AG General Physics 4.0
- ENGL 1C, MATH 150, and PHYS 2AG are typically required for transfer to a professional school of architecture. Verify all requirements with the transfer institution.

### Aviation Science
Technology and Health Division
Degree S0910
This curriculum meets the requirements of the Federal Aviation Administration Air Traffic Collegiate Training Initiative (AT-CTI). Under a mutual educational partnership agreement with the FAA, this CTI program prepares students for entry-level jobs within the air traffic controller workforce. There are no prerequisites or enrollment limitations.

**Required Courses:**
- AERO 100 Primary Pilot Ground School 4.0
- AERO 102 Aviation Weather 3.0
- AERO 104 Federal Aviation Regulations 2.0
- AERO 152 Air Transportation 3.0
- AERO 200 Aviation Safety and Human Factors 3.0
- AERO 250 Navigation 3.0
- AERO 252 Instrument Ground School 3.0
- AIRT 151 Aircraft Recognition and Performance 3.0
- AIRT 201 Terminal Air Traffic Control 3.0
- AIRT 203 Enroute Air Traffic Control 3.0
- AIRT 251 Air Traffic Control Team Skills 1.5

**Total Units** 31.5

**Recommended Electives:**
- AERO 150 Commercial Pilot Ground School 3.0
- AERO 202 Aircraft and Engines 3.0
- BUSM 60 Human Relations in Business 3.0

### Building Automation
Technology and Health Division
Degree S0308
This program is designed to prepare the student for a career in the fields of Building Automation, Energy Management, and Green Building Technologies. Students desiring a bachelor’s degree (transfer program) should consult with an advisor to discuss transferability of courses.

**Required Courses:**
- AIRC 20 Refrigeration Fundamentals 4.0
- AIRC 25 Electrical Fundamentals 5.0
- AIRC 31 Commercial Electrical 4.0
- AIRC 34 Advanced Mechanical Refrigeration 4.0
- AIRC 61 Building Automation Fundamentals 2.5
- AIRC 65 Building Automation Networks 3.0
- AIRC 67 Energy Management 4.0
- ELEC 11 Technical Applications in Microprocessors 3.0
- CISW 41 XML Secure Programming 3.0
- CNET 56 Computer Networks 4.0

**Total Units** 36.5

### Business: Management
Business Division
Degree S0506
This program is designed to prepare the student for employment following graduation. Students wishing to transfer should consult with a counselor or advisor to discuss transferability of courses.

**Required Courses:**
- BUSM 62 Human Resource Management 3.0
- BUSM 36 Principles of Marketing 3.0
- CISB 15 Microcomputer Applications 3.5

**Total Units** 29.5

**Recommended Electives:**
- BUSM 81 Work Experience in Business 1.0
- BUSM 85 Special Issues in Business 2.0
- BUSM 85 Special Issues in Marketing 2.0

### Business: Retail Management
Business Division
Degree S0509
This program exposes students to the business world and the role of retail distribution. Students become familiar with careers in retail management as well as the latest trends in this fast changing field. Completion of this program aids the student’s search for an entry-level job in retail management.

**Required Courses:**
- BUSS 50 Retail Store Management 3.0
- BUSS 25 Fundamentals of Accounting 3.0
- BUSS 60 Human Relations in Business 3.0
- BUSS 61 Business Organization and Management 3.0
- BUSS 25 Business Communications 3.0
- BUSS 26 Oral Communications for Business 3.0
- BUSS 36 Principles of Marketing 3.0
- CISB 15 Microcomputer Applications 3.5
- FASH 62 Retail Buying and Merchandising 3.0
- BUSM 62 Human Resource Management 3.0
- BUSS 25 Business Communications 3.0
- BUSM 60 Human Relations in Business 3.0
- BUSS 61 Business Organization and Management 3.0
- BUSS 50 Retail Store Management 3.0

**Total Units** 32.5
Programs of Study Leading to an Associate Degree

Child Development

Business Division
Degree S1315

This program provides a theoretical framework and practical experience developing skills necessary to work directly in preschool classrooms. Graduates can be employed at the teacher or master teacher level. The program develops students’ skills and abilities in observation and assessing, planning and executing activities, and classroom management based on developmentally appropriate practices. Degree requirements exceed the identified eight (8) courses for transfer by requiring additional practical experience and curriculum courses.

Required Courses:

<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, School and Community</td>
<td>3.0</td>
</tr>
<tr>
<td>CHLD 5</td>
<td>Principles and Practices in Child Development Programs</td>
<td>3.0</td>
</tr>
<tr>
<td>CHLD 6</td>
<td>Survey of Child Development</td>
<td>3.0</td>
</tr>
<tr>
<td>CHLD 11</td>
<td>Child and Adolescent Development</td>
<td>3.0</td>
</tr>
<tr>
<td>CHLD 64</td>
<td>Health, Safety and Nutrition of Children</td>
<td>3.0</td>
</tr>
<tr>
<td>CHLD 66</td>
<td>Early Childhood Development</td>
<td>2.0</td>
</tr>
<tr>
<td>CHLD 66L</td>
<td>Early Childhood Development Observation and Assessment</td>
<td>1.0</td>
</tr>
<tr>
<td>CHLD 67</td>
<td>Early Childhood Education Practicum</td>
<td>2.0</td>
</tr>
<tr>
<td>CHLD 67L</td>
<td>Early Childhood Education Practicum Laboratory</td>
<td>1.0</td>
</tr>
<tr>
<td>CHLD 68</td>
<td>Children With Special Needs</td>
<td>3.0</td>
</tr>
<tr>
<td>CHLD 69</td>
<td>Early Childhood Development Field Work Seminar</td>
<td>2.0</td>
</tr>
<tr>
<td>CHLD 84</td>
<td>Guidance and Discipline</td>
<td>1.0</td>
</tr>
<tr>
<td>CHLD 91</td>
<td>Early Childhood Development Field Work</td>
<td>1.0</td>
</tr>
<tr>
<td></td>
<td>Total Units</td>
<td>28.0</td>
</tr>
</tbody>
</table>

Recommended Electives:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHLD 50</td>
<td>Teaching in a Diverse Society</td>
<td>3.0</td>
</tr>
<tr>
<td>CHLD 51</td>
<td>Early Literacy in Child Development</td>
<td>3.0</td>
</tr>
<tr>
<td>CHLD 61</td>
<td>Language Arts and Art Media for Young Children</td>
<td>3.0</td>
</tr>
<tr>
<td></td>
<td>Total Units</td>
<td>27.0</td>
</tr>
</tbody>
</table>

Commercial Flight

Technology and Health Division
Degree S0912

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

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

Required Courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AERO 100</td>
<td>Primary Pilot Ground School</td>
<td>4.0</td>
</tr>
<tr>
<td>AERO 102</td>
<td>Aviation Weather</td>
<td>3.0</td>
</tr>
<tr>
<td>AERO 104</td>
<td>Federal Aviation Regulations</td>
<td>2.0</td>
</tr>
<tr>
<td>AERO 150</td>
<td>Commercial Pilot Ground School</td>
<td>3.0</td>
</tr>
<tr>
<td>AERO 152</td>
<td>Air Transportation</td>
<td>3.0</td>
</tr>
<tr>
<td>AERO 200</td>
<td>Aviation Safety and Human Factors</td>
<td>3.0</td>
</tr>
<tr>
<td>AERO 202</td>
<td>Aircraft and Engines</td>
<td>3.0</td>
</tr>
<tr>
<td>AERO 250</td>
<td>Navigation</td>
<td>3.0</td>
</tr>
<tr>
<td>AERO 252</td>
<td>Instrument Ground School</td>
<td>3.0</td>
</tr>
<tr>
<td></td>
<td>Total Units</td>
<td>27.0</td>
</tr>
</tbody>
</table>

Recommended Electives:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AIRT 151</td>
<td>Aircraft Recognition and Performance</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Note: 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 - Database Management Systems

Business Division
Degree S0706

The A.S. Degree in Database Management Systems is a two-year program designed to prepare students for careers in database management systems. The degree offers a balanced catalog of classes that prepares students to work with both small and enterprise-level computer databases required by industry. Emphasis is placed on current techniques used in relational database management systems, including creating and maintaining table data, setting appropriate relationships between tables, querying needed information, creating additional objects needed for the dissemination of information from the database and setting properties to help ensure the security of data. In addition, VBA (Visual Basic for Applications) programming is covered. The enterprise level also concentrates in SQL development. In addition, the degree covers the theory of database design, including normalization and other current database topics. Student wishing a bachelor’s degree (transfer program) should meet with a counselor or advisor to discuss transferability of courses. Opportunities that are available after completion of this degree include, but are not limited to, database administrators, designers and developers, and database systems analysts.

Required Courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CISP 11</td>
<td>Computer Information Systems</td>
<td>3.5</td>
</tr>
<tr>
<td>CISP 15</td>
<td>Microcomputer Applications</td>
<td>3.5</td>
</tr>
<tr>
<td>CISP 40</td>
<td>Database Design</td>
<td>3.0</td>
</tr>
<tr>
<td>CISM 11</td>
<td>Systems Analysis and Design</td>
<td>3.5</td>
</tr>
<tr>
<td>CISP 21</td>
<td>Windows Operating System</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Recommended Electives:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CISP 31</td>
<td>Linux Operating System</td>
<td>3.0</td>
</tr>
<tr>
<td>CISP 31L</td>
<td>Linux Operating System Laboratory</td>
<td>0.5</td>
</tr>
</tbody>
</table>

Computer and Networking Technology

Technology and Health Division
Degree S0725

The Computer and Networking Technology program prepares students to become computer and networking service technicians. The program provides foundations in basic electricity and electronics, operating systems, computer service and troubleshooting, and customer relations, as well as more advanced training in networks, servers, and security. Students learn to install, configure, maintain, troubleshoot, and repair computers and networks. Students will become fully prepared to take the A+, Network+, Server+, and Security+ certification tests sponsored by CompTIA and offered at testing centers throughout the country. These industry certifications are recognized worldwide as benchmarks for the computer and networking technician. Further, students will have requisite skills upon which to seek additional I.T. certifications available for the computer and networking fields. Two certificate programs in Computer and Networking Technology are also available. Please see the “Certificates” section of the college catalog for descriptions and course requirements.

Recommended Courses:

<table>
<thead>
<tr>
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<td>AERO 100</td>
<td>Primary Pilot Ground School</td>
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<td>Aircraft and Engines</td>
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<td>AERO 252</td>
<td>Instrument Ground School</td>
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</tr>
<tr>
<td>CISP 21</td>
<td>Windows Operating System</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Total Units 26.5 - 29.0
Computer Network Administration and Security Management

Business Division
Degree 50701

Computer Network Administration and Security Management is a two-year program leading to the Associate in Science (A.S.) degree. It prepares individuals for employment in the computer/information technology field in such areas as network administrator and security management administrator.

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

The main objective of the degree is to prepare students for employment following graduation. Students wishing a bachelor’s degree should meet with a counselor or advisor for choices to transfer to available CSU joint degree programs.
### Construction Inspection

**Technology and Health Division**

**Degree S0920**

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

**Required Courses:**
- **ARCH 12** Architectural Materials and Specifications 4.0
- **ARCH 14** Building and Zoning Codes 3.0
- **INSP 18** Legal Aspects/Construction 3.0
- **INSP 70** Elements of Construction 3.0
- **INSP 71** Construction Estimating 3.0
- **INSP 87** Fund Construct Inspect 3.0
- **Total Units 19.0**

**Recommended Electives:**
- **ARCH 11** Architectural Drawing 3.0
- **ARCH 15** Architectural Working Drawings I 3.0
- **INSP 67** Reading Construction Drawings 3.0

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### Correctional Sciences

**Technology and Health Division**

**Degree S2103**

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

**Required Courses:**
- **ADJU 68** Administration of Justice Report Writing 3.0
- **CORS 10** Introduction to Correctional Sciences 3.0
- **CORS 15** Control and Supervision of the Offender 3.0
- **CORS 20** Correctional Law 3.0
- **CORS 25** Probation and Parole 3.0
- **KINF 52** Administration of Justice, Fire Technology, and Forestry 3.0
- **Total Units 18.0**

**Recommended Electives:**
- **CHLD 51** Early Literacy in Child Development 3.0
- **CHLD 64** Health, Safety, and Nutrition of Children 3.0
- **CHLD 68** Children With Special Needs 3.0
- **CHLD 69** Children With Special Needs 3.0
- **CHLD 70H** Child Growth and Lifespan Development - Honors or
- **Total Units 18.0**

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### Educational Paraprofessional (Instructional Assistant)

**Humanities and Social Sciences Division**

**Degree S2117**

This degree program prepares paraprofessionals to work with children in a variety of ways that enhance learning. 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” as specified by federal legislation.

**Required Courses:**
- **CHLD 1** Child, Family, School and Community 3.0
- **CHLD 10** Child Growth and Lifespan Development or
- **PHYS 2AG** General Physics 4.0

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### Electronics and Computer Engineering Technology

**Technology and Health Division**

**Degree S0906**

The Electronics and Computer Engineering Technology (ECET) certificate program prepares individuals either for initial employment or for enhancement of existing skills in the electronics field, or for transfer into B.S. programs in Electronics Technology or Industrial Technology offered in the CSU system. Required courses for the certificate — many of which articulate directly to their equivalents at the CSUs are the same as for the ELET A.S. degree program except for the college General Education requirement. In addition to exposing students to core topics such as components and circuits, the program includes coursework in advanced areas including microcontrollers and interfacing, communications, and industrial electronic controls. Nearby all laboratories have new, state-of-the-art equipment to provide students with quality, hands-on learning experiences. Students completing the ECET certificate program possess ample skills to make them versatile employees. Typical technician-level job classifications include field service technician, field engineer, computer service technician, customer service technician, communications technician, maintenance technician, and electronics technician. All students completing the certificate program are automatically eligible to receive, without further examination, the 4th class technician license from the National Association of Radio and Telecommunications Engineers (N.A.R.T.E.).

**Required Courses:**
- **ELEC 11** Technical Applications in Microcomputers 3.0
- **ELEC 12** Computer Simulation and Troubleshooting 2.0
- **ELEC 50A** Electronic Circuits - Direct Current (DC) 4.0
- **ELEC 50B** Electronic Circuits (AC) 4.0
- **ELEC 51** Semiconductor Devices and Circuits 4.0
- **ELEC 52** Communications Circuits 4.0
- **ELEC 52A** Industrial Electronics 4.0
- **ELEC 52B** Industrial Electronic Systems 4.0
- **ELEC 53** Microwave Communications 4.0
- **ELEC 54** Digital Electronics 4.0
- **ELEC 71** Electronic Assembly and Fabrication 3.0
- **ELEC 74** Microcontroller Systems 4.0
- **TECH 60** Customer Relations for the Technician 2.0
- **Total Units 45.0**

**Recommended Electives:**
- **CISP 11** Programming in Visual Basic 3.0
- **EDT 11** Technical Engineering Drawing I 3.0
- **ELEC 62** Advanced Surface Mount Assembly and Rework 2.0
- **ELEC 76** FCC General Radiotelephone Operator 2.0
- **PHYS 2AG** General Physics 4.0

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### Emergency Medical Services

**Technology and Health Division**

**Degree S1210**

Students who complete the required courses listed below for the Emergency Medical Technician-Paramedic (EMT-P) Certificate and who also complete the graduation requirements of Mt. San Antonio College will be awarded the 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
The Emergency Medical Services faculty recommends that students complement their studies with selected elective courses chosen from the list above. Students should meet with a professor of Emergency Medical Services to help them determine which electives would best suit their career plans.

Special Information
To remain in the program, students must maintain a grade of C (“80”) or better in all courses, per state regulations. Before starting clinical rotations, students must pass a criminal background check. Upon successful completion of the required courses, students are granted a certificate documenting completion of the Paramedic Program. Students are then eligible for licensure by taking and passing both the National Registry Exam and County Paramedic accreditation exam.

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

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-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) 274-7500, Ext. 4750. All applications are dated upon receipt in the Technology and Health Division Office. The Paramedic Program begins two times per year and runs for 29 weeks.
5) Take the Assessment of Written English, Math Placement test, and Degrees of Reading Power tests at least ten working days before the start of the pre-course EMS 1 and EMS 2. Placement examinations will be individually assessed to determine eligibility for the pre-courses. The placement tests are administered by the Assessment Center in the Student Services Center.
6) Successful completion of EMS-1, Fundamentals for Paramedics and EMS 2, Preparation for Paramedic Program.
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 and before entrance into the clinical setting. Forms and information will be provided upon acceptance into the program. In addition, drug testing may be required as part of the physical examination and/or requested by the college or one of its agents.

ALL APPLICANTS ARE EXPECTED TO MEET THE ESSENTIAL FUNCTIONS FOR SUCCESS IN THE PARAMEDIC PROGRAM

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

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

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

Equipment Technology

Natural Sciences Division
Degree 50118
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.
### Programs of Study Leading to an Associate Degree

mtsac.edu/instruction/sciences/agriculture

#### Required Courses:
- AGAG 1  Food Production, Land Use  3.0
- AGAG 59  Work Experience in Agriculture  1.0 - 4.0
- AGOR 51  Tractor and Landscape Equipment Operations  3.0
- AGOR 52  Hydraulics  3.0
- AGOR 53  Small Engine Repair I  3.0
- AGOR 54  Small Engine Repair II  3.0
- AGOR 55  Diesel Engine Repair  3.0
- AGOR 57  Power Train Repair  3.0
- AGOR 56  Engine Diagnostics  3.0
- AGOR 71  Landscape Construction Fundamentals 3.0
- AGOR 72  Landscape Hardscape Applications  3.0
- AGOR 73  Landscape Hardscape Applications  3.0
- CISB 15  Microcomputer Applications  3.5

**Total Units** 34.5 - 37.5

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### Fashion Design and Technologies

**Business Division**

**Degree S1308**

The A.S. Degree in Fashion Merchandising is designed to prepare students for entry-level careers in the apparel industry in Southern California. This A.S. program also offers students courses specializing in apparel retailing, advertising, textiles, and visual communications.

The courses emphasize the business of fashion, wholesale merchandise planning, and apparel branding targeting specific markets. Upon completion of the program, students will be able to develop marketing strategies, create promotional campaigns, understand the buying process, and analyze retail businesses.

Entry-level employment opportunities available after completion of this program may include retail sales, small store merchandising and showroom assisting.

#### Required Courses:
- FASH 8  Introduction to Fashion  3.0
- FASH 10  Clothing Construction I  3.0
- FASH 15  Aesthetic Design in Fashion  3.0
- FASH 17  Textiles  3.0
- FASH 25  Fashion Computer-Assisted Drawing  3.0
- FASH 59  Fashion Retailing  3.0
- FASH 62  Retail Buying and Merchandising  3.0
- FASH 63  Fashion Promotion  3.0
- FASH 66  Visual Merchandising Display  3.0

**Total Units** 27.0

**Recommended Electives:**
- KINF 53  Physical Training  2.5 for the Basic Fire Academy

**Total Units** 23.5 - 40.5

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### Fire Technology

**Technology and Health Division**

**Degree S2105**

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

#### Required Courses:
- FIRE 1  Fire Protection Organization  3.0
- FIRE 2  Fire Prevention Technology  3.0
- FIRE 3  Fire Protection Equipment and Systems  3.0
- FIRE 4  Building Construction for Fire Protection  3.0
- FIRE 5  Fire Behavior and Combustion  3.0
- FIRE 13  Principles of Fire and Emergency Services Safety and Survival  3.0
- FIRE 8  Fire Company Organization and Management  3.0
- FIRE 9  Fire Hydraulics  3.0
- FIRE 10  Arson and Fire Investigation  3.0
- FIRE 11  Fire Apparatus and Equipment  3.0
- FIRE 12  Wildland Fire Control  4.5
- FIRE 86  Basic Fire Academy  14.5
- KINF 53  Physical Training  2.5 for the Basic Fire Academy

**Total Units** 41.5

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### General Business

**Business Division**

**Degree S0501**

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

#### Required Courses:
- BUSA 7  Principles of Accounting - Financial  5.0
- BUS 72  Bookkeeping - Accounting  5.0

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### Graphic Design

**Arts Division**

**Degree S0318**

This program is designed to provide students with a combination of creative, design, problem solving, and technical skills necessary for entry-level employment as a Graphic Designer in the Commercial Art industry. Students completing this program are eligible for advanced training or transfer to a college or university for further study.

#### Required Courses:
- ARTC 290  Portfolio  3.0
- ARTD 20  Design: Two Dimensional  3.0
- ARTS 290  Portfolio  3.0
- ARTS 290  Portfolio  3.0
### Natural Sciences Division

#### Histologic Technician Training

**Degree S1121**

This program provides on-campus and on-site technical training in the field of histotechnology, focusing on routine tissue sample preparation, special stains and techniques such as immunohistochemistry, and in situ hybridization. Training on campus will utilize samples routinely prepared in both clinical and research facilities. As part of their formal training, students of histotechnology will work through study guides provided by the American Society of Clinical Pathologists (ASCP) for its certification examination. Partnerships with local facilities will allow for work experience and internship sites, required for certification of histotechnology graduates, and will provide further training for those interested in research and/or careers in the private sector.

**Required Courses:**
- ANAT 10B  Introductory Human Physiology 4.0
- or ANAT 36  Human Physiology 5.0
- or MICR 26  Introduction to Immunology 3.0
- or ANAT 35  Human Anatomy 5.0
- or CHEM 10  Chemistry for Allied Health Majors 5.0
- or CHEM 40  Introduction to General Chemistry 5.0
- or CHEM 50  General Chemistry I 5.0
- or HT 50H  General Chemistry I - Honors 5.0
- or HT 1  Introduction to Histotechnology 1.0
- or HT 2  Scientific Basics for Histologic Technicians 3.0
- or HT 10  Histology 3.0
- or HT 12  Beginning Histotechniques 5.0
- or HT 14  Advanced Histotechniques 5.0
- or HT 16  Histochemistry/Immunohistochemistry 4.0
- or MICR 1  Principles of Microbiology 5.0
- or MICR 22  Microbiology 4.0

**Total Units: 42.0 - 45.0**

### Horse Ranch Management

**Natural Sciences Division**

**Degree S0102**

Horse Ranch Management offers students a look into the science, breeding, management and training of horses using a hands-on approach. It helps to prepare students for a variety of jobs in the horse industry and is molded around a core of horse science, agriculture, and general education courses. 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.

**Required Courses:**
- (Complete three (3) units of Work Experience—AGAG 59)
- AGAG 59  Work Experience in Agriculture 1.0
- AGAN 2  Animal Nutrition 3.0
- AGAN 94  Animal Breeding 3.0
- AGLI 16  Horse Production and Management 4.0
- AGLI 18  Horse Ranch Management 4.0
- AGLI 19  Horse Hoof Care 2.0
- AGLI 20  Horse Behavior and Training 2.0
- AGLI 96  Animal Sanitation and Disease Control 3.0
- AGLI 97  Artificial Insemination of Livestock 2.0

**Required Electives**

**Select six (6) units from:**
- AGOR 51  Tractor and Landscape Equipment Operations 3.0
- AGOR 53  Small Engine Repair I 3.0
- AGOR 71  Landscape Construction Fundamentals 3.0
- BUSM 20  Principles of Business 3.0
- BUSM 66  Small Business Management 3.0
- WELD 40  Introduction to Welding 2.0

**Total Units: 32.0**

### Hospitality and Restaurant Management

**Business Division**

**Degree S1307**

This Associate of Science in Hospitality and Restaurant Management prepares students for mid-level or Manager-In-Training position in the hospitality industry. Students gain practical and management training in: food safety and sanitation, food production, dining room service management, supervision, cost control, financial accounting, lodging management, and hospitality law. Students who successfully complete the requirements for this degree will also earn the Food Protection Manager Certification from the National Restaurant Association upon passing the ServSafe Exam. This program is designed to articulate with the Collins College of Hospitality Management at Cal Poly Pomona as well as other universities. Students wishing to transfer should consult with Hospitality Management Coordinator to discuss transfer options.

**Required Courses:**
- HRM 51  Introduction to Hospitality 3.0
- HRM 52  Food Safety and Sanitation 1.5
- HRM 53  Dining Room Service Management 3.0
- HRM 54  Basic Cooking Techniques 3.0
- HRM 56  Hospitality Supervision 3.0
- HRM 57  Hospitality Cost Control 3.0
- HRM 64  Hospitality Financial Accounting 3.0
- HRM 66  Hospitality Law 3.0
- HRM 70  Introduction to Lodging 3.0

**PLUS one of the following (3 units):**
- HRM 61  Menu Planning 3.0
- HRM 62  Catering 3.0
- HRM 91  Hospitality Work Experience 1.0

**(This is a variable unit course. Three (3) units are required)**

**Total Units: 28.5**

### Human Resource Management

**Business Division**

**Degree S0530**

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

**Required Courses:**
- ANTH 22  General Cultural Anthropology 3.0
- BUSA 70  Payroll and Tax Accounting 3.0
- BUSL 19  Advanced Business Law 3.0
- BUSM 20  Principles of Business 3.0
- BUSM 60  Human Relations in Business 3.0
- BUSM 61  Business Organization 3.0
- BUSM 62  Human Resource Management 3.0
- BUSO 25  Business Communications 3.0
- CISB 15  Microcomputer Applications 3.5

**Total Units: 27.5**
Programs of Study Leading to an Associate Degree

Industrial Design Engineering
Technology and Health Division
Degree S0331

This program is designed to prepare the student for a career in a wide range of industries including product and industrial design firms and fabricating and manufacturing companies. Students are introduced to product development from design through prototyping and fabrication for manufacturing.

Portfolio or prototype development is required on each of the semester levels. In the Level Three certificate and AS Degree course work, this will culminate in a final “senior project,” which is a portfolio that includes two and three-dimensional design, documentation (accountability measures), presentation, and fabrication. This project will demonstrate the student’s mastery of the concepts and methodologies learned during the program.

Students desiring a Bachelor’s Degree should consult with a counselor or an educational advisor to discuss transferability of courses.

Required Courses:
- IDE 110 Design Foundation - Visual Literacy 3.0
- IDE 120 Intro to CAD 3.0
- IDE 130 Shop Processes 3.0
- IDE 150 Design Foundations 3.0
- IDE 160 Intermediate CAD 3.0
- IDE 170 Introduction to Prototyping 3.0
- IDE 210 Advanced Media 3.0
- IDE 220 Advanced CAD 3.0
- IDE 230 Intro to Mechanical Principles 3.0
- IDE 250 Product Design and Viability 6.0
- IDE 270 Manufacturing Processes and Materials 3.0

Total Units 36.0

Recommended Electives:
- AGOR 63 Landscape Irrigation - Design 3.0
- AGOR 32 Landscaping and Nursery Management 3.0
- AGOR 40 Sports Turf Management 3.0
- AGOR 75 Urban Arboriculture 3.0

Integrated Pest Management
Natural Sciences Division
Degree S0311

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

Required Courses:
- AGOR 1 Horticultural Science 3.0
- AGOR 24 Integrated Pest Management 3.0
- AGOR 29 Ornamental Plants - Herbs/Perennials 3.0
- AGOR 30 Ornamental Plants - Trees and Woody Shrubs 3.0
- AGOR 39 Turf Grass Production and Management 3.0
- AGOR 50 Soil Science and Management 3.0
- AGOR 62 Landscape Irrigation - Design and Installation 3.0
- AGOR 63 Landscape Irrigation Systems Management 3.0
- AGOR 91 Work Experience in Nursery Operations 3.0

Students must take at least 6 units of any of the following:
- BIOL 1 General Biology 4.0
- BIOL 2 Plant and Animal Biology 4.0
- BIOL 3 Ecology and Field Biology 4.0
- BIOL 4 Biology for Majors 4.0
- BIOL 4H Biology for Majors - Honors 4.0
- BIOL 6 Humans and the Environment Laboratory 3.0
- BIOL 6L Humans and the Environment Laboratory 2.0
- BIOL 8 Cell and Molecular Biology 4.0
- BIOL 20 Marine Biology 3.0
- BIOL 21 Marine Biology Laboratory 1.0
- BIOL 34 Fundamentals of Genetics 3.0
- BIOL 50 Biology Basic Skills 0.5
- BTNY 3 Plant Structures, Functions, and Diversity 5.0
- CHEM 10 Chemistry for Allied Health Majors 5.0
- CHEM 20 Introductory Organic and Biochemistry 5.0
- CHEM 40 Introduction to General Chemistry 5.0
- CHEM 50 General Chemistry I 5.0
- CHEM 50H General Chemistry I - Honors 5.0
- CHEM 51 General Chemistry II 5.0
- CHEM 60 Quantitative Chemical Analysis 5.0
- CHEM 80 Organic Chemistry 5.0
- CHEM 81 Organic Chemistry II 5.0

From the following list complete (9 Units)
- AGOR 2 Plant Propagation/Greenhouse Management 3.0
- AGOR 15 Interior Landscaping 3.0
- AGOR 32 Landscaping and Nursery Management 3.0
- AGOR 40 Sports Turf Management 3.0
- AGOR 75 Urban Arboriculture 3.0

Total Units 42.0

Interior Design
Business Division
Degree S1301

The Interior Design A.S. degree provides students with an excellent foundation for a successful career in interior design. Students will obtain the skill set necessary to obtain a variety of positions in the design field.

Required Courses:
- ID 10 Introduction to Interior Design 2.0
- ID 10L Introduction to Interior Design Laboratory 1.0
- ID 21 Color and Design Theory I 3.0
- ID 22 Color and Design Theory II 3.0
- ID 27 Rapid Visualization 3.0
- ID 29 Interior Design Studio I 3.0
- ID 31 Building Systems for Interior Design 3.0
- ID 32 Lighting Design and Theory for Interior Design 3.0
- ID 34 Computer Aided Drawing for Interior Design II 3.0
- ID 36 Portfolio Development for Interior Design 3.0
- ID 37 Business Practices for Interior Design 3.0
- ID 38 Internship in Interior Design 2.0
- ID 39 Interior Design Studio II 3.0

Total Units 50.0

Recommended Electives:
- AGOR 13 Landscape Design 3.0
- AGOR 15 Interior Landscaping 3.0
- ARCH 23 Architectural Presentations 3.0
- ARTG 20 Art, Artists and Society 3.0
- BUSA 72 Bookkeeping - Accounting 5.0
- ID 50 Interior Design Specialized Studio 3.0
- ID 52 Independent Studies in Interior Design 1.0

Interior Design - Kitchen and Bath
Business Division
Degree S1302

The Interior Design: Kitchen and Bath Design A.S. degree provides students with specialized skills in the area of Kitchen and Bath Design and is accredited by the National Kitchen and Bath Association. Students will strengthen career perspectives and develop work to incorporate into a professional portfolio.
### Required Courses:
- ID 10  Introduction to Interior Design  2.0
- ID 12  Materials and Products for Interior Design  3.0
- ID 20  Color and Design Theory I  3.0
- ID 21  Color and Design Theory II  3.0
- ID 22  Design Drawing for Interior Design  3.0
- ID 23  Computer Aided Drawing for Interior Design  3.0
- ID 25  Space Planning for Interior Design I  3.0
- ID 26  Space Planning for Interior Design II  3.0
- ID 27  Rapid Visualization  3.0
- ID 29  Interior Design Studio I  3.0
- ID 30  Interior Design Specialized Studio  3.0
- ID 31  Building Systems for Interior Design  3.0
- ID 32  Lighting Design and Theory  3.0
- ID 34  Computer Aided Drawing for Interior Design II  3.0
- ID 37  Business Practices for Interior Design  3.0
- ID 38  Internship in Interior Design  1.0 (1.0 - 3.0 variable unit course, 2 units required)
- ID 39  Interior Design Studio II  3.0
- ID 40  Kitchen and Bath Studio I  3.0
- ID 41  Kitchen and Bath Studio II  3.0
- ID 48  Internship in Kitchen and Bath  1.0 (1.0 - 3.0 variable unit course, 3 units required)

**Total Units 59.0**

### International Business

#### Business Division

**Degree S0507**

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

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

### PLUS select one (1) course (4 Units)
- CHIN 1  Elementary Chinese  4.0
- FRCH 1  Elementary French  4.0
- GERM 1  Elementary German  4.0
- ITAL 1  Elementary Italian  4.0
- JAPN 1  Elementary Japanese  4.0
- SPAN 1  Elementary Spanish  4.0

**Total Units 28.0**

### Recommended Electives:
- BUSM 81  Work Experience in Business  1.0
- BUSM 85  Special Issues in Business  2.0
- BUSS 85  Special Issues in Marketing  2.0

### Law Enforcement

#### Technology and Health Division

**Degree S2102**

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

### Required Courses:
- ADJU 1  The Administration of Justice System  3.0
- ADJU 2  Principles and Procedures of the Justice System  3.0
- ADJU 3  Concepts of Criminal Law  3.0
- ADJU 4  Legal Aspects of Evidence  3.0
- ADJU 5  Community Relations  3.0
- ADJU 68  Administration of Justice Report Writing  3.0

### Required Electives

**PLUS select four (4) courses from the following (12 units)**
- ADJU 6  Concepts of Enforcement Services  3.0
- ADJU 13  Concepts of Traffic Services  3.0
- ADJU 20  Principles of Investigation  3.0
- ADJU 38  Narcotics Investigation  3.0
- ADJU 59  Gangs and Corrections  3.0
- 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
- CORS 10  Introduction to Correctional Sciences  3.0
- SOC 1  Sociology  3.0
- or
- SOC 1H  Sociology - Honors  3.0
- SOC 5  Introduction to Criminology  3.0
- or
- SOC 5H  Introduction to Criminology - Honors  3.0

**Total Units 30.0**

### Recommended Electives:
- KINF 50  Physical Skills Preparation for Administration of Justice and Fire Technology  2.0
- KINF 51  Agility Testing Preparation for Administration of Justice and Fire Technology  2.0
- KINF 52  Fitness and Conditioning for Administration of Justice, Fire Technology, and Forestry  1.0

### Licensed Vocational Nurse to RN

#### Technology and Health Division

**Degree S1201**

The Mt. San Antonio College Nursing Program, approved and accredited by the California Board of Registered Nursing, is a two-year program designed to prepare men and women to give direct nursing care to clients in various practice settings. The program consists of coursework in nursing, science, general education and clinical nursing practice at local hospitals and health agencies. Graduates of the program receive an Associate 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 a Degree in Nursing or completing the LVN 30-Unit Option track which leads to a certificate, not a degree.

### Prerequisite Courses

1. Human Anatomy, including a laboratory component, a minimum of four semester units.
2. Human Physiology, including a laboratory component, a minimum of four semester units.
3. Microbiology, including a laboratory component, a minimum of four semester units.
4. English 1A (Writing Composition) minimum of three (3) semester units with a minimum grade of C.
5. PSYC 1A Introduction to Psychology.
6. CHLD 10 Child Growth and Lifespan Development or PSYC 14 Developmental Psychology

### Non-course requirements:

1. An overall grade point average (GPA) of 2.5 for the Human Anatomy, Human Physiology, and Microbiology prerequisite courses with no grade less than a “C” for each course and no more than one repetition of any one of these courses.
2. A cumulative grade point average (GPA) of 2.5 for all college coursework completed.
3. Eligibility for Math 51
4. High school graduation or GED or academic degree from an accredited college/university in the United States.
### Programs of Study Leading to an Associate Degree

#### Requirements for the Associate Degree

**Required Courses:** (28.0 units)

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<tr>
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<th>Course Title</th>
<th>Units</th>
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<tbody>
<tr>
<td>NURS 4</td>
<td>Maternity Nursing</td>
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<td>NURS 5</td>
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<td>NURS 6</td>
<td>Pediatric Nursing</td>
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<td>NURS 7</td>
<td>Medical-Surgical Nursing: Circulation</td>
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<td>Medical-Surgical Nursing: Circulation</td>
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<td>NURS 9</td>
<td>Leadership in Nursing</td>
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<td>NURS 10</td>
<td>Medical-Surgical Nursing: Regulation</td>
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<tr>
<td>NURS 11</td>
<td>Preceptorship in Nursing</td>
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**Degree Program Requirements:** (26-29 units)

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<td>Human Physiology</td>
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<td>MICR 1</td>
<td>Principles of Microbiology</td>
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<td>CHLD 10</td>
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<td>CHLD 10H</td>
<td>Child Growth and Lifespan Development</td>
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**Total Units:** 54.0 - 57.0

#### Requirements for the Major: (26-29 Units)

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<td>Psychiatric Nursing</td>
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<td>NURS 6</td>
<td>Pediatric Nursing</td>
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<td>NURS 7</td>
<td>Medical-Surgical Nursing: Circulation</td>
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<td>NURS 8</td>
<td>Medical-Surgical Nursing: Circulation</td>
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<td>NURS 9</td>
<td>Leadership in Nursing</td>
<td>1.0</td>
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<tr>
<td>NURS 10</td>
<td>Medical-Surgical Nursing: Regulation</td>
<td>4.0</td>
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</tbody>
</table>

**Integrated/Regulation**

**NURS 11** Preceptorship in Nursing 2.0

**ANAT 35** Human Anatomy 5.0

**ANAT 36** Human Physiology 5.0

**ANAT 10A** Introductory Human Anatomy 4.0

**ANAT 10B** Introductory Human Anatomy 4.0

**MICR 1** Principles of Microbiology 5.0

**MICR 22** Microbiology 4.0

**ENGL 1A** Freshman Composition 4.0

**or**

### English Language Skills:

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

### Livestock Management

#### Natural Sciences Division

**Degree 50103**

This program is designed to give students basic skills in livestock management for employment opportunities on farms, ranches, and agriculture sales and services.

**Required Courses:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AGAG 1</td>
<td>Food Production, Land Use and Politics</td>
<td>3.0</td>
</tr>
<tr>
<td>or</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AGAG 59</td>
<td>Work Experience in Agriculture</td>
<td>1.0</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>AGLI 14</td>
<td>Swine Production</td>
<td>3.0</td>
</tr>
<tr>
<td>AGLI 17</td>
<td>Sheep Production</td>
<td>3.0</td>
</tr>
<tr>
<td>AGLI 30</td>
<td>Beef Production</td>
<td>3.0</td>
</tr>
<tr>
<td>AGLI 34</td>
<td>Livestock Judging and Selection</td>
<td>2.0</td>
</tr>
<tr>
<td>AGLI 96</td>
<td>Animal Sanitation and Disease Control</td>
<td>3.0</td>
</tr>
</tbody>
</table>

**Complete one (1) to four (4) units of Work Experience**

**AGAG 59**

**Working Environment:**

- May be exposed to infectious and contagious disease, without prior notification
- Regularly exposed to the risk of blood borne diseases

**Sensory Demands:**

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

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUSM 60</td>
<td>Human Relations in Business</td>
<td>3.0</td>
</tr>
<tr>
<td>BUSM 61</td>
<td>Business Organization and Management</td>
<td>3.0</td>
</tr>
<tr>
<td>BUSO 5</td>
<td>Business English</td>
<td>3.0</td>
</tr>
<tr>
<td>MENT 72</td>
<td>Nursing Care of the Developmentally Disabled Person - Clinical</td>
<td>7.0</td>
</tr>
<tr>
<td>MENT 72L</td>
<td>Nursing Care of the Developmentally Disabled Person - Clinical</td>
<td>5.5</td>
</tr>
<tr>
<td>MENT 73</td>
<td>Psychiatric Nursing for Psychiatric Technicians Clinical</td>
<td>5.5</td>
</tr>
<tr>
<td>MENT 73T</td>
<td>Psychiatric Nursing for Psychiatric Technicians Clinical</td>
<td>6.0</td>
</tr>
<tr>
<td>MENT 82</td>
<td>Work Experience in Mental Health Technology</td>
<td>2.0</td>
</tr>
<tr>
<td>PSYC 1A</td>
<td>Introduction to Psychology</td>
<td>3.0</td>
</tr>
<tr>
<td>PSYC 1AH</td>
<td>Introduction to Psychology – Honors</td>
<td>3.0</td>
</tr>
</tbody>
</table>

### Mental Health Technology - Psychiatric Technician

#### Technology and Health Division

Degree S1208

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

**Required Courses:**

- **MENT 40** Introduction to Interviewing and Counseling 3.0
- **MENT 56** Medical-Surgical Nursing for Psychiatric Technicians 9.0
- **MENT 56L** Medical-Surgical 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 2.0
- **MENT 72** Nursing Care of the Developmentally Disabled Person 7.0
- **MENT 72L** Nursing Care of the Developmentally Disabled Person - Clinical 5.5
- **MENT 73** Psychiatric Nursing for Psychiatric Technicians Clinical 5.5
- **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
- **PSYC 1AH** Introduction to Psychology – Honors 3.0

**Total Units** 54.0
PROGRAMS OF STUDY LEADING TO AN ASSOCIATE DEGREE

Candidates prior to beginning classes. Students are required to pass an English Placement Test. The College will make every effort to notify the applicant of acceptance by mail no less than two months prior to the beginning of a program. ALL APPLICANTS ARE REQUIRED TO MEET THE ESSENTIAL FUNCTIONS FOR SUCCESS IN THE MENTAL HEALTH TECHNOLOGY - PSYCHIATRIC TECHNICIAN PROGRAM.

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

Sensory Demands:
- Color vision: ability to distinguish and identify colors (may be corrected with adaptive device)
- 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 a 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, psycho logical and physical disabilities, and under a wide variety of circumstances
- Handle emergency or crisis situations

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. Freshman Composition, minimum of three (3) semester units with a minimum grade of "C".

Additional requirements:
1. An overall grade point average of 2.5 for the Human Anatomy, Human Physiology, and Microbiology prerequisite courses with no grade less than a "C" for each course and no more than one repetition of any one of the courses.
2. A cumulative grade point average (GPA) of 2.5 for all college coursework completed.
3. Eligibility for MATH 71
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 immunization is required of all candidates prior to the beginning of nursing classes.

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

Required Courses:
NURS 1A The Nursing Process I 5.0
NURS 1B The Nursing Process II 5.0
NURS 2 Pharmacology 2.0
NURS 3 Medical-Surgical Nursing: Locomotion/Sensation/Integument/Oncology/Immunology 3.5
NURS 4 Maternity Nursing 3.0
NURS 5 Psychiatric Nursing 3.0
NURS 6 Pediatric Nursing 3.0
NURS 7 Medical-Surgical Nursing: Nutrition/ Elimination/Surgical Asepsis 7.0
NURS 8 Medical-Surgical Nursing: Circulation and Oxygenation 5.0
NURS 9 Leadership in Nursing 1.0
NURS 10 Medical-Surgical Nursing: Integration/Regulation 4.0
NURS 11 Preceptorship in Nursing 2.0

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

Additional requirements:
- Certain convictions may prevent a candidate from being licensed as a Psychiatric Technician.
- All students will be required to pass a background check prior to entering the clinical education phase.

Selection Procedure:
In determining eligibility of an applicant, consideration will be given to satisfactory scores on the English Placement Test. The College will make every effort to notify the applicant of acceptance by mail no less than two months prior to the beginning of a program.

- Hepatitis A/B vaccine is required of all students.
- If the courses were taken and/or the degree obtained at Mt. San Antonio College, it is
- One transcript must be sent to the Technology and Health Division Office and
- The other to the Admissions and Records Office.
- If the courses 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.
- The Mt. San Antonio College Nursing Program, approved
- By the California Board of Registered Nursing, is a two-year program designed to prepare
- Men and women to give direct nursing care to clients
- In various practice settings. The program consists of coursework in nursing, science, general education, and
diagnosis and intervention practice at local hospitals and health agencies. Graduates of the program receive their Associate in Science degree in Nursing and are eligible to take the NCLEX-RN examination leading to licensure as a Registered Nurse.
### Required Prerequisite Courses for the Major:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANAT 35</td>
<td>Human Anatomy</td>
<td>5.0</td>
</tr>
<tr>
<td>ANAT 36</td>
<td>Human Physiology</td>
<td>5.0</td>
</tr>
<tr>
<td>ANAT 10A</td>
<td>Introductory Human Anatomy</td>
<td>4.0</td>
</tr>
<tr>
<td>ANAT 10B</td>
<td>Introductory Human Physiology</td>
<td>4.0</td>
</tr>
<tr>
<td>MICR 1</td>
<td>Principles of Microbiology</td>
<td>5.0</td>
</tr>
<tr>
<td>MICR 22</td>
<td>Microbiology</td>
<td>4.0</td>
</tr>
<tr>
<td>ENGL 1A</td>
<td>Freshman Composition</td>
<td>4.0</td>
</tr>
<tr>
<td>ENGL 1AH</td>
<td>Freshman Composition - Honors</td>
<td>4.0</td>
</tr>
<tr>
<td>CHLD 10</td>
<td>Child Growth and Lifespan Development</td>
<td>3.0</td>
</tr>
<tr>
<td>CHLD 10H</td>
<td>Child Growth and Lifespan - Honors</td>
<td>3.0</td>
</tr>
<tr>
<td>PSYC 14</td>
<td>Developmental Psychology</td>
<td>3.0</td>
</tr>
<tr>
<td>PSYC 1A</td>
<td>Introduction to Psychology</td>
<td>3.0</td>
</tr>
<tr>
<td>PSYC 1AH</td>
<td>Introduction to Psychology - Honors</td>
<td>3.0</td>
</tr>
<tr>
<td>SPCH 1A</td>
<td>Public Speaking</td>
<td>4.0</td>
</tr>
<tr>
<td>SPCH 1AH</td>
<td>Public Speaking - Honors</td>
<td>4.0</td>
</tr>
<tr>
<td>SPCH 2</td>
<td>Fundamentals of Communication</td>
<td>4.0</td>
</tr>
<tr>
<td>SPCH 8</td>
<td>Professional and Organizational Speaking</td>
<td>4.0</td>
</tr>
<tr>
<td>SPCH 8H</td>
<td>Professional and Organizational Speaking - Honors</td>
<td>4.0</td>
</tr>
</tbody>
</table>

**Total Units:** 69.5 - 72.5

### Additional Notations

- 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 meet with a counselor or educational adviser to discuss transferability of courses.

### Requirements for the Associate degree

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

Questions regarding equivalent course work from other colleges should be addressed with the Counseling Center.

### English Language Skills:

- Possess the ability for extremely heavy effort (lift/carry 50 lbs. or more)
- Perform considerable reaching, stooping, bending, kneeling, crouching

### Sensory Demands:

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

### Working Environment:

- Exposure to infectious and contagious disease, without prior notification
- Exposure to blood borne diseases
- Exposure to hazardous agents, body fluids and wastes
- Exposure to odorous chemicals and specimens
- Exposure to products containing latex
- Subject to hazards of flammable, explosive gases
- Subject to burns and cuts

### Cognitive/Psychosocial Demands:

- Handle numerous interruptions
- Handle emergency or crisis situations
- Care of patients and family with different religious, culture, ethnicity, race, sexual orientation, psychological and physical disabilities, and under a wide variety of circumstances
- Care of patients and family facing end of life situations

### 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
Programs of Study Leading to an Associate Degree

AGOR 50  Soil Science and Management 3.0
AGOR 62  Landscape Irrigation - Design 3.0
AGOR 71  Landscape Construction Fundamentals 3.0
PLUS complete one (1) to four (4) units from the following course:
AGOR 91  Work Experience in Nursery Operations 1.0
PLUS select six (6) units from:
AGOR 50  Soil Science and Management 3.0
AGOR 51  Tractor and Landscape Equipment 3.0
AGOR 62  Landscape Irrigation - Design 3.0
AGOR 70  Urban Arboriculture 3.0
AGOR 71  Landscape Construction Fundamentals 3.0
AGOR 73  Landscaping Laws, Contracting, Estimating 3.0
AGOR 75  Urban Arboriculture 3.0
Total Units 43.0 - 46.0

Paralegal/Legal Assistant
Business Division
Degree S0310
The paralegal program is intended to prepare students for employment as paralegals in both private and public sectors following graduation. The American Bar Association (ABA) By-Laws Section 21.12 uses the terms paralegal and legal assistant interchangeably referring to persons who, although not members of the legal profession, are qualified through education, training, or work experience and are employed or retained by a lawyer, law office, governmental agency, or other entity in a capacity or function which involves the performance, under the direction and supervision of an attorney, of specifically delegated substantive legal work. Paralegals/legal assistants must comply with the legal restrictions in the practice of law by nonlawyers. The California Business & Professions Code, Section 6450 et seq, governs paralegals in California.

Required Courses:
PLGL 30  Introduction to Paralegal/Legal 3.0
PLGL 31A  Legal Analysis and Writing 3.0

PLUS choose two (2) courses from:
AGOR 50  Soil Science and Management 3.0
AGOR 51  Tractor and Landscape Equipment 3.0
AGOR 62  Landscape Irrigation - Design 3.0
AGOR 70  Urban Arboriculture 3.0
AGOR 71  Landscape Construction Fundamentals 3.0
AGOR 73  Landscaping Laws, Contracting, Estimating 3.0
AGOR 75  Urban Arboriculture 3.0

PLUS complete one (1) to four (4) units from the following course:
AGOR 91  Work Experience in Nursery Operations 1.0
Total Units 46.0 - 49.0

Park and Sports Turf Management
Natural Sciences Division
Degree S0116
The courses in park and sports turf management are designed to enable students to prepare for a career in this essential and diverse profession. This degree is part of our comprehensive Agricultural Sciences Program. The program is unique in that most courses provide hands-on experience designed to give the student a combination of practical skills and technical knowledge. Students who intend to transfer should meet with a counselor or advisor to check the lower division requirements in the catalog of the college or university which they will attend and also the semester and year in which courses are offered.
This program is intended to prepare students to manage a park or sports facility and also for employment following graduation. Students will learn how to design, install and manage irrigation systems, set up and implement fertilizer and pest management programs, design and properly install a complete landscape (including all plants and hard cape), and properly identify and maintain trees, shrubs and turf grasses. In addition, students will learn about personnel management, budgeting and other management topics.

Required Courses:
AGOR 50  Soil Science and Management 3.0
AGOR 51  Tractor and Landscape Equipment 3.0
AGOR 53  Small Engine Repair I 3.0
AGOR 62  Landscape Irrigation - Design 3.0
AGOR 70  Urban Arboriculture 3.0
AGOR 73  Landscaping Laws, Contracting, Estimating 3.0
AGOR 91  Work Experience in Nursery Operations 1.0
Total Units 43.0 - 46.0

Pet Science
Natural Sciences Division
Degree S0104
The program of courses in Agriculture is designed to enable students to prepare for a career in this essential and diverse profession. The Department offers a comprehensive Agricultural Sciences Program and is unique in that most courses provide hands-on experience designed to give the student a combination of practical skills and technical knowledge.
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 should consult with the department chairperson, counselor or advisor to discuss transferability of courses. The curriculum is flexible in nature to allow for previous experience and specialization in a given area of agriculture and agricultural business.

Required Courses:
AGAN 1  Animal Science 3.0
AGAN 2  Animal Nutrition 3.0
AGAN 51  Animal Handling and Restraint 3.0
AGAN 94  Animal Breeding 3.0
AGLU 96  Animal Sanitation and Disease Control 3.0
AGPE 70  Pet Shop Management 3.0
AGPE 71  Animal Management 3.0
AGPE 72  Animal Nutrition 3.0
AGPE 73  Animal Breeding 3.0
AGPE 74  Animal Sanitation and Disease Control 3.0
AGPE 76  Aviculture - Cage and Aviary Birds 3.0
Total Units 31.0

Photography
Arts Division
Degree S1002
This program is designed to prepare the student for employment in the field of photography. A variety of career opportunities are available in photography, art, cinema, communications, industrial arts, graphics, and journalism. Students desiring a bachelor's degree should consult with an advisor or catalog of the institution they wish to attend regarding transferability of courses.

Required Courses:
GRAP 10  Photoshop Imagery 3.0
PHOT 10  Basic Digital and Film Photography 3.0
PHOT 11  Intermediate Photography 4.0
PHOT 12  Photographic Alternatives 3.0
Physical Education

Kinesiology, Athletics and Dance Division
Degree S0806

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

Required Courses:
- ANAT 35 Human Anatomy 5.0
- ANAT 36 Human Physiology 5.0
- NF 10 Nutrition for Personal Health and Wellness 3.0
- NF 25 Essentials of Nutrition 3.0
- NF 25H Essentials of Nutrition – Honors 3.0
- KIN 3 First Aid and CPR 3.0
- KIN 5 Advanced First Aid/CPR/Emergency Response 3.0
- KIN 17 Introduction to Physical Education 3.0

Recommended Electives:
- AHIS 1 Understanding the Visual Arts 3.0
- ARBT 1 Understanding the Visual Arts 3.0
- PHOT 1 Laboratory Studies: Black and White Photography 1.0
- PHOT 25 Digital Capture Workflow 3.0
- PHOT 29 Studio Business Practices 3.0

Total Units 37.0

Psychiatric Technician to RN

Technology and Health Division
Degree S1209

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

The Psychiatric Technician is provided career mobility into the Nursing Program to earn an Associate degree in Nursing.

Prerequisite Courses:
1. Human Anatomy, including a laboratory component, a minimum of four semester units.
2. Human Physiology, including a laboratory component, a minimum of four semester units.
3. Microbiology, including a laboratory component, a minimum of four semester units.
4. English 1A (Writing Composition) minimum of three semester units with units with a minimum grade of C.
5. PSYC 1A Introduction to Psychology.
6. CHLD 10 Child Growth and Lifespan Development or PSYC 14 Developmental Psychology.

Non-course requirements:
1. An overall grade point average of 2.5 for the prerequisite courses.
2. A cumulative grade point average (GPA) of 2.5 for all college coursework completed.
3. Eligibility for MATH 51.
4. Possess a current California Psychiatric Technician License.
5. Criminal background check and drug screening must be passed 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. Possess a current California Psychiatric Technician License.
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 Nursing Office for approval prior to enrollment in this course. Applicants must have completed all prerequisite courses prior to taking NURS 70. Applicants must provide proof of current Psychiatric Technician License, physical, CPR card, Background Check, and drug test prior to the start of class.)

Required Courses:

Requirements for Nursing: (28.5 Units)

NURS 3 Medical-Surgical Nursing: Locomotion/Sensation/Integument/Oncology/Immunology 3.5
NURS 4 Maternity Nursing 3.0
NURS 5 Pediatric Nursing 3.0
NURS 7 Medical-Surgical Nursing: Nutrition/ Elimination/ Surgical Asepsis 7.0
NURS 8 Medical-Surgical Nursing: Circulation and Oxygenation 5.0
NURS 9 Leadership in Nursing 1.0
NURS 10 Medical-Surgical Nursing: Integration/Regulation 4.0

Requirements for the Major: (26-29 Units)

ANAT 35 Human Anatomy 5.0
ANAT 36 Human Physiology 5.0
ANAT 10A Introductory Human Anatomy 4.0
ANAT 10B Introductory Human Physiology 4.0
MICR 1 Principles of Microbiology 5.0
MICR 22 Microbiology 4.0
ENGL 1A Freshman Composition 4.0
ENGL 1AH Freshman Composition - Honors 4.0
CHLD 10 Child Growth and Lifespan Development 3.0
CHLD 10H Child Growth and Lifespan Development - Honors 3.0
PSYC 14 Developmental Psychology 3.0
PSYC 1A Introduction to Psychology 3.0
PSYC 1AH Introduction to Psychology - Honors 3.0
SPCH 1A Public Speaking 4.0
SPCH 1AH Public Speaking - Honors 4.0

Total Units 54.5 - 57.5

Note: Applicants planning to continue their education and enter a baccalaureate program in nursing will need to meet with a counselor or educational advisor to discuss transferability of courses.

Requirements for the Associate degree

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

Selection Process

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.
Programs of Study Leading to an Associate Degree

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

The eligibility appointment:
a) Once a student has completed all course prerequisites, the student will then apply to the Nursing Department on an appointment basis.
b) Students who have completed coursework at other colleges must bring the following information to their eligibility appointment:
   - Official transcripts of all college work completed at all colleges;
   - If the prerequisite courses were completed at another college, a course description and a copy of the course syllabus;
   - Students completing college coursework outside of the United States will need to have their transcripts evaluated by an approved international transcript evaluation agency and must bring the final evaluation to their appointment (students may be able to obtain a list of agencies from the Admissions Office).
   - Due to specific college deadlines for International Student applications, please inform the Counseling/Educational Advisor that this applies to you.
c) All students will need to bring official proof of high school graduation, GED, or college graduation from an accredited institution in the United States.

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

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

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

Radio Broadcasting: Behind the Scenes

Arts Division
Degree S0606
The Radio Broadcasting Behind-the-Scenes degree is designed for students who are interested in the nonperformance 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. Students intending to pursue a bachelor's degree (transfer program) should consult with a counselor or advisor to discuss transferability of courses.

Required Courses:
- R-TV 01 Introduction to Electronic Media 3.0
- R-TV 09 Broadcast Sales and Promotion 3.0
- R-TV 10 Radio Programming and Producer Techniques 3.0
- R-TV 11A Beginning Radio Production 3.0
- R-TV 11B Advanced Radio Production 3.0
- R-TV 15 Broadcast Law and Business Practices 3.0
- R-TV 96 Campus Radio Station Lab 1.0 - 2.0

The following courses must be taken simultaneously:
- R-TV 97A Radio/Entertainment Industry Seminar 1.0
- R-TV 97B Radio/Entertainment Industry Seminar 1.0
- R-TV 97C Radio/Entertainment Industry Seminar 1.0

PLUS select nine (9) units from:
- R-TV 31 History of Radio DJs 3.0
- R-TV 32 Radio - TV Internet Applications 3.0
- R-TV 33 Radio Show Producer Techniques and Procedures 3.0

Total Units 30.0 - 31.0

Radio Broadcasting: On the Air
Arts Division
Degree S0605
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. Students intending to pursue a bachelor's degree (transfer program) should consult with a counselor or advisor to discuss transferability of courses.

Required Courses:
- R-TV 01 Introduction to Electronic Media 3.0
- R-TV 02 On-Air Personality Development 3.0
- R-TV 05 Radio-TV Newswriting 3.0
- R-TV 07A Beginning Commercial Voice-Overs 3.0
- R-TV 11A Beginning Radio Production 3.0
- R-TV 15 Broadcast Law and Business Practices 3.0
- R-TV 95 Campus Radio Station Operations 1.5
- R-TV 96 Campus Radio Station Lab 1.0
- R-TV 97A Radio/Entertainment Industry Seminar 1.0
- R-TV 97B Radio/Entertainment Industry Seminar 1.0
- R-TV 97C Radio/Entertainment Industry Seminar 1.0
- R-TV 97D Work Experience 1.0

Required Electives
- Plus nine (9) units from the following courses:
  - 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 09 Broadcast Sales and Promotion 3.0
  - R-TV 10 Radio Programming and Producer Techniques 3.0
  - R-TV 11B Advanced Radio Production 3.0
  - R-TV 17 Internet Radio and Podcasting 3.0
  - R-TV 31 History of Radio DJs 3.0
  - R-TV 32 Radio - TV Internet Applications 3.0
  - R-TV 34 On-Camera Performance 1.5
  - R-TV 35 Pop Culture in the Media 3.0
  - R-TV 101 Work Experience in Broadcast Entertainment 1.0

Total Units 31.5
Radiologic Technology
Technology and Health Division
Degree S1206

The Radiologic Technology program, which is accredited by the Joint Review Committee on Education in Radiologic Technology (JRCERT), is designed to prepare students to function as certified radiologic technologists. Students will gain knowledge and understanding of the diagnostic uses of x-ray, as well as the technical skills to use x-ray equipment in both laboratory and clinical settings. The courses are developed to enable students to operate x-ray equipment, assist in the diagnosis of disease, and to observe proper medical ethics. Students will learn the nature of radiation, the principles of electricity, the structure of x-ray machines, and the operation of a clinical x-ray department.

To remain in the program, students must maintain a grade of "C" or better in all courses.

Upon completion of the Associate in Sciences degree in Radiologic Technology, graduates are eligible to apply for the registry examination through the American Registry of Radiologic Technologist and the California Certification of Radiologic Technology. This is a licensed profession, and a valid Social Security number is required to obtain state certification and national licensure.

Required Courses:
- RAD 1A Clinical Experience 1A 5.0
- RAD 1B Clinical Experience 1B 3.0
- RAD 2A Clinical Experience 2A 5.0
- RAD 2B Clinical Experience 2B 3.0
- RAD 3A Clinical Experience 3A 7.5
- RAD 3B Clinical Experience 3B 3.0
- RAD 3C Clinical Experience 3C 7.5
- RAD 4 Clinical Experience IV 4.5
- RAD 30 Radiographic Pathology 1.5
- RAD 31 Fluoroscopy and Radiobiology 5.5
- RAD 32 Digital Imaging in Radiology 2.0
- RAD 50 Introduction to Radiologic Science and Health Care 3.0
- RAD 61A Theory of Radiologic Technology 4.0
- RAD 61B Radiographic Procedures I 3.0
- RAD 61C Radiographic Procedures I Laboratory 1.5
- RAD 62A Theory of Radiologic Technology 4.0
- RAD 62B Radiographic Procedures II 3.0
- RAD 62C Radiographic Procedures II Laboratory 1.5
- RAD 63 Theory of Radiologic Technology 4.0
- RAD 64 Theory of Radiologic Technology 4.0
- RAD 91 Patient Care in Radiologic Sciences 3.0

Total Units 78.5

Additional Notations

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

a) File a college application and be accepted as a student at Mt. San Antonio College.
b) Take the college placement examination which is used as an indicator. If you have already taken a college placement test exam within the past two years at another school, arrange to have your scores forwarded to the Technology and Health Division Office. If you were tested at Mt. San Antonio College, the Technology and Health Division Office will obtain the test scores as long as an "Application for Admission" is on file with the Admission and Records Office. Arrangement should be made with the Service Center to Schedule a date and time to take the college placement examination if required. The Assessment Center is open Monday through Friday. You may contact them at (909) 274-7500 ext. 4265. For students who possess a college degree, the English placement test is not required, however, it will be necessary for a student to obtain two official copies of the college transcript showing the degree issued. One official transcript must be sent to Technology and Health Division Office and the other to Admission and Records. If the courses were taken and/or the degree obtained at Mt. San Antonio College, it is not necessary to request transcripts. Request the transcript for the Division Office be addressed as follows: Mt. San Antonio College Technology and Health Division Radiologic Technology Program 1100 North Grand Avenue Walnut CA 91789-1299
c) Forward two official transcripts of all coursework completed (high school, and other than Mt. San Antonio College courses). One transcript must be sent to Technology and Health Division Office and the other to Admission and Records.
d) Submit an application for the Radiologic Technology Program to the Technology and Health Division Office (909) 274-7500 ext. 4750. All applications are dated upon receipt in the Technology and Health Division Office. A program begins each summer intersession.
e) Applicant must be 18 years of age upon entrance into the program.
f) High school graduate or equivalent. Please provide a copy of diploma as proof of high school completion.
g) Possess a valid Social Security Card. This is a licensed profession, and a valid Social Security Number is required to obtain state certification and national licensure.
h) Complete all AS degree General Education requirements to include program prerequisites listed below (i) before admission to the program. Students are required to make an appointment with an educational advisor to review general education requirements for graduation.

Program Completion Requirements:

a) All students entering the Radiologic Technology Program MUST complete all the major course requirements and the general education requirements necessary to complete the Associate degree before a certificate documenting completion in Radiologic Technology will be given. This certificate will permit the student to apply for the registry exam through the American Registry of Radiologic Technologist and the California Certification of Radiologic Technology.

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

c) A course in mammography is also offered in the final semester for graduate students and licensed radiographers. This course is optional.
Programs of Study Leading to an Associate Degree

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 agent, body fluids and wastes
- Exposed to odorous chemicals and specimens
- Subject to hazards of flammable, explosive gases
- Subject to burns and cuts
- Contact with patients having different religious, culture, ethnicity, race, sexual orientation, psychological and physical disabilities, and under a wide variety of circumstances
- Handle emergency or crisis situations
- Subject to many interruptions
- Requires decisions/actions critical to patient safety
- Exposed to procedures containing latex

Required Skills and Physical Abilities:
In order to ensure student and patient safety and welfare, the radiologic technology student must have sufficient strength, motor coordination, manual dexterity, intellectual capacity, and sensory functions to be able to:

a) Transport, move, lift, or transfer patients from a wheelchair or gurney to an x-ray table or to a patient bed.
b) Lift arms above the head to move the x-ray tube assembly.
c) Move, adjust, and manipulate portable and fluoroscopic equipment according to established procedures and standards of speed and accuracy while conducting radiographic examinations.
d) Maneuver well enough to physically protect himself or herself from injury caused by patients exhibiting aggressive behaviors.
e) Physically place patients in the proper positions for the examination according to established procedures and standards of speed and accuracy.
f) Rapidly respond to situations involving the health and safety of patients, providing physical and emotional support to the patient during radiographic procedures, providing basic first aid and emergency care in the absence of or until a physician arrives.
g) Function adequately under stressful situations related to technical and procedural standards of patient care situations.
h) Hear well enough (average 30 decibels for both ears) to respond to directions or calls for help from individuals remote from the location of the student.
i) Speak English clearly enough to explain and direct procedural information to patients, and to communicate with physicians, technical staff, and faculty. Students for which English is a second language may be required to complete a verbal communication assessment prior to entering the program.
j) Calculate and select proper technical exposure factors according to the individual needs of the patient’s condition and requirements of the procedure with speed and accuracy.
k) View and evaluate the recorded images of a radiograph for the purpose of identifying proper patient positioning, accurate procedural sequencing, proper exposure (and/or “s” number), and other established technical qualities.

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

Real Estate
Business Division
Degree S0512
This program prepares students for employment following graduation. Students wishing a bachelor’s degree (transfer program) should consult with a counselor or advisor to discuss transferability of courses.

**Required Courses:**
- BUSR 50 Real Estate Principles 3.0
- BUSR 51 Legal Aspects of Real Estate 3.0
- BUSR 52 Real Estate Practice 3.0

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

**PLUS Group B Select zero (0), one (1) or two (2) courses from:**
- BUSA 11 Fundamentals of Accounting 3.0
- BUSA 12 Bookkeeping - Accounting 5.0
- BUSL 18 Business Law 3.0

**Total Units 28.0 - 44.0**
Respiratory Therapy
Technology and Health Division
Degree S120S

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 cardio-pulmonary physiology and recognition of various pathological conditions that alter the patient's ability to breathe effectively.

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

Some mechanical aptitude and the ability to perform fine motor movements with hands and fingers is required in learning the operation of specialized equipment. This includes diagnostic apparatus which aids the physician in detecting cardiorespiratory diseases.

Required Courses:
- RESD 50 Theory and Principles of Respiratory Therapy 2.0
- RESD 51A Respiratory Therapy Science 4.0
- RESD 51B Respiratory Therapy Science 4.0
- RESD 52 Pulmonary Anatomy and Physiology 3.0
- RESD 53 Cardiopulmonary Pathophysiology 3.0
- RESD 55 Adult Respiratory Intensive Care 3.0
- RESD 56A Techniques of Respiratory Therapy 2.5
- RESD 56B Techniques of Respiratory Therapy 2.5
- RESD 56C Techniques of Respiratory Therapy 2.5
- RESD 56D Techniques of Respiratory Therapy 2.5
- RESD 57A Special Procedures for Respiratory Care 1.5
- RESD 57B Special Procedures for Respiratory Care 1.5
- RESD 58 Neonatal Intensive Care 3.0
- RESD 59 Respiratory Therapeutic Modalities 3.0
- RESD 60 Comprehensive Pulmonary Assessment 2.0
- RESD 61 Current Issues in Respiratory Care 3.0

Entrance Requirements:
In addition to meeting Mt. San Antonio College's academic standards for admission, applicants must be in good standing and satisfy the following requirements:
1) Applicants must be at least 18 years of age upon entrance into the program and must be a high school graduate or equivalent. Please provide copy of diploma as proof of high school completion.
2) File a college application and be accepted as a student at Mt. San Antonio College.
3) Applicant must take the College placement exams before taking any of the prerequisite or respiratory therapy courses.

NOTE: Testing is administered by the Assessment Center located in the Student Services Center, Building 9B. You may contact them at (909) 274-7500, ext. 4265, to set up an appointment.

For students who possess a college degree, the 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 Admission Office. If the degree was obtained at Mt. SAC, it is not necessary to request transcripts. Transcripts should be addressed as follows: Mt. San Antonio College Technology and Health Division Respiratory Therapy Program 1100 North Grand Avenue Walnut CA 91789-1389

4) Submit an application for the Respiratory Therapy Program to the Technology and Health Division Office (Bldg. 28A, Room 101E), (909) 274-7500, ext. 4750.

All applications are dated upon receipt.

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

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

Other Requirements:
RESD 50 pre-requisites ANAT 10A/B, CHEM 10, MATH 51 and MEDI 90 must be completed prior to entering the program.

All students will be required to complete a background check prior to entering the clinical education phase. A physical examination, including specific immunizations, is required of all candidates prior to beginning classes.

For students who possess a college degree, the 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 Admission Office. If the degree was obtained at Mt. SAC, it is not necessary to request transcripts. Transcripts should be addressed as follows: Mt. San Antonio College Technology and Health Division Respiratory Therapy Program 1100 North Grand Avenue Walnut CA 91789-1389

Physical Demands:
- Perform prolonged, extensive, or considerable standing/walking, lifting, positioning, pushing, and/or transferring patients
- Possess the ability to perform fine motor movements with hands and fingers
- Possess the ability for extremely heavy effort (lift and carry at least 50 pounds or more)
- Perform considerable reaching, stooping, bending, kneeling, and crouching

Sensory Demands:
- Color vision: ability to distinguish and identify...
Programs of Study Leading to an Associate Degree

Special Information
The completion of the Respiratory Therapy Program and receipt of a certificate documenting completion of required courses requires completion of the Associate degree. The student may elect to pursue either the Associate in Science or Associate in Arts degree. All students entering the program must submit an educational plan showing the major course requirements for the degree.

To remain in the program, students must maintain a “C” or better grad in all courses. Students who are dropped, failed, or withdraw from the program may request re-admission for the following year in the semester in which they were stopped or may re-start the program. Students who re-start the program will be required to re-take all Respiratory Therapy courses even if satisfactory grades were received. Re-entry may occur only one time.

Sign Language/Interpreting

Humanities and Social Sciences Division

Degree S0801

The Mt. San Antonio College Interpreter Training Program is designed to prepare individuals for careers as Sign Language Interpreters. Interpreters are needed wherever communication happens between the hearing community and the Deaf and hard-of-hearing community. There are an endless number of settings in which this communication takes place. Interpreters are employed by school districts, cruise-ship companies, corporations, government agencies, hospitals, colleges and universities, and a vast number of other organizations and private businesses.

Program Preparation: Preparation for the program includes fluency in American Sign Language demonstrated by the completion of SIGN 104, American Sign Language 4, or the equivalent skill) and English fluency demonstrated by the completion of ENGL 1A.

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

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

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

Required Courses:
SIGN 105 American Sign Language 5 4.0
SIGN 108 Fingerspelling 2.0
SIGN 201 Introduction to Deaf Studies 3.0
SIGN 202 American Deaf Culture 3.0
SIGN 210 American Sign Language Structure 3.0
SIGN 220 Translation: American Sign Language/English 3.0
SIGN 223 Principles of Interpreting 3.0
SIGN 225 Ethical Decision Making 2.0
SIGN 227 Cognitive Processing for Interpreters 4.0
SIGN 231 Interpreting 4.0
SIGN 232 Advanced Interpreting 4.0
SIGN 239 Applied Interpreting 2.0

Required Electives
Select three (3) courses from: (5-5.5 units)
SIGN 240 Vocabulary Building for Interpreters 2.0
SIGN 250 Interpreting with Classifiers 1.5
SIGN 260 Video Interpreting 1.5
SIGN 299 Special Projects in Sign Language/Interpreting

Total Units 42.0 - 42.5

Small Business Management

Business Division

Degree S0508

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

Required Courses:
BUS 7 Principles of Accounting - Financial 5.0
BUS 10 Principles of Continuous Quality Improvement 3.0
BUS 20 Principles of Business 3.0
BUS 60 Human Relations in Business 3.0

PLUS 12 units from the following courses or any of the above courses not taken:
PHOT 10 Basic Digital and Film Photography 3.0
R-TV 18 Introduction to Screenwriting 3.0
R-TV 19A Beginning Video Production 3.0
R-TV 19B Advanced Video Production 3.0
R-TV 20 Television News Production 3.0
R-TV 21 Remote Multicamera Production 3.0
R-TV 22 Editing for Film and Television 3.0
R-TV 23 Reality Show Production 3.0
R-TV 24 American Film History 3.0

Television Production

Arts Division

Degree S0602

The Associate in Science degree in Television Production is designed to prepare students for entry-level jobs in the television industry in a variety of areas including narrative, remote and studio production, writing, preproduction, editing, and finance.

Required Courses:
Choose two (2) of the following courses:
R-TV 21 Introduction to Electronic Media 3.0
R-TV 14 Media Aesthetics 3.0
R-TV 28 Introduction to Writing 3.0

PLUS 12 units from the following courses or any of the above courses not taken:
PHOT 10 Basic Digital and Film Photography 3.0
R-TV 18 Introduction to Screenwriting 3.0
R-TV 19A Beginning Video Production 3.0
R-TV 19B Advanced Video Production 3.0
R-TV 20 Television News Production 3.0
R-TV 21 Remote Multicamera Production 3.0
R-TV 22 Editing for Film and Television 3.0
R-TV 23 Reality Show Production 3.0
R-TV 24 American Film History 3.0
Welding – Semiautomatic Arc Welding

Technology and Health Division

Degree S0919

This program is designed to prepare the student for employment in the broad field of welding. It leads to occupations in manufacturing and repair and helps prepare the student for positions in supervision. Courses in the welding curriculum prepare students for welding certification. The college is a testing agency for the City of Los Angeles and is authorized to administer the performance test for the Structural Welding Certificate. There is a $50 charge for students and $60 for non-students to take this test. Topics of the written portion of the test which is administered by the city are reviewed in various welding courses offered by the college. This program is intended to prepare students for employment following graduation. Students desiring a bachelor’s degree (transfer program) should consult with a counselor or advisor to discuss transferability of courses.

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

Total Units 21.0

Recommended Electives:
BUSM 61  Business Organization and Management  3.0
WELD 30  Metal Sculpture  2.0
WELD 60  Print Reading and Computations for Welders  3.0
WELD 81  Pipe and Tube Welding  3.0

Total Units  18.0

ASSOCIATE IN ARTS DEGREE (AA) WITH EMPHASIS

Associate in Arts degree in Liberal Arts and Sciences

Emphasis in Business
Degree A8981
An emphasis in Business provides the student with an understanding of business and its role in society. Students will have knowledge of various business functions and economic analysis. Upon completion of this degree students will be prepared for an entry level job in the business world.

Required Courses:
BUSC 1A  Principles of Economics  3.0
- Macroeconomics
or
BUSC 1AH  Principles of Economics  3.0
- Macroeconomics - Honors
BUSC 1B  Principles of Economics  3.0
- Microeconomics
or
BUSC 1BH  Principles of Economics  3.0
- Microeconomics - Honors
CISB 15  Microcomputer Applications  3.5
or
CISB 11  Computer Information Systems  3.5

Plus select a minimum of three (3) courses from the following which should be selected in consultation with a counselor or educational advisor.
BUSA 7  Principles of Accounting - Financial  5.0
BUSA 8  Principles of Accounting - Managerial  5.0
BUSC 17  Applied Business Statistics  3.0
BUSL 18  Business Law  3.0
or
BUSL 18H  Business Law - Honors  3.0
BUSM 20  Principles of Business  3.0
BUSO 25  Business Communications  3.0

Total Units 18.5 - 22.5 for Area of Emphasis

Recommended Electives:
SPCH 7  Intercultural Communication  3.0

Associate in Arts degree in Liberal Arts and Sciences

Emphasis in Communication
Degree A8982
An emphasis in Communication provides the student with an understanding of communication strategies, reasoning, logic, and critical analysis as it relates to human interaction within multiple cultural contexts.

Required Courses:
Core/Required Courses (7 units)
SPCH 1A  Public Speaking  4.0
or
SPCH 1AH  Public Speaking - Honors  4.0
SPCH 2  Fundamentals of Communication  4.0
or
SPCH 26  Interpersonal Communication  3.0
or
SPCH 26H  Interpersonal Communication - Honors  3.0
PLUS Select eleven (11) units from the following:
SPCH 1A  Public Speaking  4.0
or
SPCH 1AH  Public Speaking - Honors  4.0

BUSM 61  Business Organization and Management  3.0
WELD 30  Metal Sculpture  2.0
WELD 60  Print Reading and Computations for Welders  3.0
WELD 81  Pipe and Tube Welding  3.0

Total Units 21.0

Recommended Electives:

ASSOCIATE IN ARTS DEGREE WITH EMPHASIS

Liberal Arts and Sciences with area of emphasis in one of the following:

Business .............................................................. 91
Communication................................................... 91
Fine Arts.......................................................... 92
Humanities ......................................................... 92
Information Technology .................................... 93
Kinesiology and Wellness ................................. 94
Language Arts .................................................... 94
Mathematics ...................................................... 95
Music ............................................................... 95
Natural Sciences ............................................... 96
Social & Behavioral Sciences ............................. 96

Mt. San Antonio College's Associate in Arts degrees are designed to meet the needs of students interested in graduating with a two-year college degree by studying in a specific area of emphasis. These students are not intending to pursue a specific occupational major, nor are they necessarily planning to transfer. However, careful educational planning with a counselor or an educational advisor will help ensure that, if a student subsequently decides to transfer at a later date to a four-year college or university, he or she would have a solid foundation in the transfer process.

To qualify for an Associate in Arts degree, students must complete all the graduation requirements as listed on page 63 of this catalog. In addition, students choose one of eleven "areas of emphasis" and complete the appropriate requirements as shown in this section. Courses listed within an area of emphasis may also be used to satisfy general education requirements, with additional elective courses chosen by the student to complete the 60-unit degree requirement. The printed degree and transcript notation will read "Associate in Arts in Liberal Arts and Sciences, Emphasis in [specific area]."

Note: Students wishing to transfer to the California State University system may be required to select additional General Education courses from either the CSU General Education pattern found on page 105 of this catalog or from the Intersegmental General Education Transfer Core Curriculum (IGETC) pattern listed on page 109 of this catalog.

Students wishing to transfer to the University of California system may be required to select additional General Education courses only from the Intersegmental General Education Transfer Core Curriculum (IGETC) pattern listed on page 109 of this catalog.

All students wishing to transfer are strongly advised to meet with a counselor or educational advisor to determine the most effective selection of general education courses to facilitate transfer to either the California State University system or to the University of California in specific majors.
select 12 units from the list of approved electives.

**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>ARTD 17A</td>
<td>Drawing: Life</td>
<td>3.0</td>
</tr>
<tr>
<td>ARTD 20</td>
<td>Design: Two-Dimensional</td>
<td>3.0</td>
</tr>
<tr>
<td>ARTD 21</td>
<td>Design: Color and Composition</td>
<td>3.0</td>
</tr>
<tr>
<td>ARTD 25A</td>
<td>Beginning Painting I</td>
<td>3.0</td>
</tr>
<tr>
<td>ARTS 22</td>
<td>Design: Three-Dimensional</td>
<td>3.0</td>
</tr>
<tr>
<td>AHIS 4</td>
<td>History of Western Art: Prehistoric</td>
<td>3.0</td>
</tr>
<tr>
<td>AHIS 4H</td>
<td>History of Western Art: Prehistoric</td>
<td>3.0</td>
</tr>
<tr>
<td>AHIS 5</td>
<td>History of Western Art: Renaissance</td>
<td>3.0</td>
</tr>
<tr>
<td>AHIS 5H</td>
<td>History of Western Art: Renaissance</td>
<td>3.0</td>
</tr>
<tr>
<td>PLUS</td>
<td>Select twelve (12) units from one of the following art categories:</td>
<td></td>
</tr>
<tr>
<td>Ceramics:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ARTS 30A</td>
<td>Ceramics: Beginning</td>
<td>3.0</td>
</tr>
<tr>
<td>ARTS 30B</td>
<td>Ceramics: Beginning</td>
<td>3.0</td>
</tr>
<tr>
<td>ARTS 31</td>
<td>Ceramics: Advanced Studio</td>
<td>3.0</td>
</tr>
<tr>
<td>ARTS 33</td>
<td>Ceramics: Hand Construction</td>
<td>3.0</td>
</tr>
<tr>
<td>ARTS 34</td>
<td>The Sculptural Vessel</td>
<td>3.0</td>
</tr>
<tr>
<td>Sculpture:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ARTS 40A</td>
<td>Sculpture: Beginning</td>
<td>3.0</td>
</tr>
<tr>
<td>ARTS 40B</td>
<td>Sculpture: Intermediate</td>
<td>3.0</td>
</tr>
<tr>
<td>ARTS 40C</td>
<td>Sculpture: Carving</td>
<td>3.0</td>
</tr>
<tr>
<td>ARTS 41A</td>
<td>Sculpture: Life</td>
<td>3.0</td>
</tr>
<tr>
<td>ARTS 41B</td>
<td>Sculpture: Intermediate Life</td>
<td>3.0</td>
</tr>
<tr>
<td>ARTS 42</td>
<td>Sculpture: Mold Making</td>
<td>3.0</td>
</tr>
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<td>ARTS 46A</td>
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**Total Units**: 20.0-21.5

**Recommended Electives**:
- BUSA 7  Principles of Accounting - Financial  5.0
- BUSM 20  Principles of Business  3.0
- BUSM 60  Human Relations in Business  3.0
- BUSO 25  Business Communications  3.0
- BUSS 36  Principles of Marketing  3.0
- CISB 31  Microsoft Word  3.0
- CISB 51  Microsoft PowerPoint  3.0
- CISM 11  Systems Analysis and Design  3.5
- R-TV 17  Internet Radio and Podcasting  3.0
- SPCH 26  Interpersonal Communication  3.0
- SPCH 26H Interpersonal Communication - Honors  3.0

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

**Emphasis in Kinesiology and Wellness**

**Degree A8987**

An emphasis in Kinesiology and Wellness provides the student with an understanding of kinesiology, health promotion, and the mechanics of human bodily movement. In addition to the foundational physical education and movement courses, students select courses from a scientific and nutrition and behavioral development and diversity cluster.

**Required Courses**:
- Kinesiology, Movement, and Health Promotion
  Select a minimum of 6 units from the following:
  *(6 units)*
  - KIN 3  First Aid and CPR  3.0
  - KIN 5  Advanced First Aid/CPR/ Emergency Response  3.0
  - KIN 13  Sports Officiating  3.0
  - KIN 17  Introduction to Physical Education  3.0
  - KIN 19  Introduction to Care/Prevention of Activity/Related Injuries  3.0
  - KIN 34  Fitness for Living  3.0
  - KIN 39  Techniques of Fitness Testing  2.0
  - KIN 44  Theory of Coaching  3.0
  - DN-T 18  Introduction to Dance  3.0
  - DN-T 20  History and Appreciation of Dance  3.0

**Total Units**: 18.0

**Emphasis in Language Arts**

**Degree A8987**

An emphasis in Language Arts provides the student with an understanding of the acquisition of language with a focus on reading, writing, listening, and speaking with a diverse environment. In addition to the foundational language acquisition courses, students select personal options that will strengthen their individual interest and goals within Language Arts.

**Required Courses**:
- Language Acquisition
  *(minimum of 9 units selected from the following):*
  - CHLD 51  Early Literacy in Child Development  3.0
  - ENGL 1C  Critical Thinking and Writing  4.0
  - ENGL 1CH Critical Thinking and Writing - Honors  4.0
  - PHIL 9  Critical Analysis and Writing  3.0
  - ENGL 81  Language Acquisition  3.0
  - READ 100  Analysis and Critical Reading  3.0
  - SIGN 210  American Sign Language Structure  3.0
  - STDY 100  Student Achievement and Fundamentals of Learning  3.0

**Language Arts and Diversity**

**(minimum 6 units selected from the following):**
- SPAN 1  Elementary Spanish  4.0
- SPAN 2  Continuing Elementary Spanish  4.0
- SPAN 3  Intermediate Spanish  4.0
- SPAN 4  Continuing Intermediate Spanish  4.0
- SPAN 11  Spanish for the Spanish Speaking  4.0
- SPAN 12  Continuing Spanish for the Spanish Speaking  4.0
- FRCH 1  Elementary French  4.0
- FRCH 2  Continuing Elementary French  4.0
- FRCH 3  Intermediate French  4.0
- FRCH 4  Continuing Intermediate French  4.0
- FRCH 5  Advanced French  4.0
- FRCH 6  Continuing Advanced French  4.0
FRCH 53 Intermediate Conversational French 3.0
FRCH 54 Continuing Intermediate Conversational French 3.0
ITAL 1 Elementary Italian 4.0
ITAL 2 Continuing Elementary Italian 4.0
ITAL 3 Intermediate Italian 4.0
ITAL 4 Continuing Intermediate Italian 4.0
ITAL 52 Conversational Italian 3.0
ITAL 53 Continuing Conversational Italian 3.0
ITAL 54 Advanced Conversational Italian 3.0
GERM 1 Elementary German 4.0
GERM 2 Continuing Elementary German 4.0
GERM 3 Intermediate German 4.0
CHIN 1 Elementary Chinese 4.0
CHIN 2 Continuing Elementary Chinese 4.0
CHIN 3 Intermediate Chinese 4.0
CHIN 4 Continuing Intermediate Chinese 4.0
JAPN 1 Elementary Japanese 4.0
JAPN 2 Continuing Elementary Japanese 4.0
JAPN 3 Intermediate Japanese 4.0
JAPN 4 Continuing Intermediate Japanese 4.0
JAPN 5 Advanced Japanese 4.0
LATN 1 Elementary Latin 4.0
LATN 2 Continuing Elementary Latin 4.0
ARAB 1 Elementary Arabic 4.0
ARAB 2 Continuing Elementary Arabic 4.0
SIGN 101 American Sign Language 1 4.0
SIGN 102 American Sign Language 2 4.0
SIGN 103 American Sign Language 3 4.0
SIGN 104 American Sign Language 4 4.0
SIGN 105 American Sign Language 5 4.0
LIT 3 Multicultural American Literature 3.0
LIT 11A World Literature to 1650 3.0
LIT 11B World Literature from 1650 3.0
LIT 20 African American Literature 3.0
LIT 25 Contemporary Mexican American Literature 3.0
CHLD 50 Multicultural Education: Anti-Bias Perspective 3.0
JOUR 100 Introduction to Mass Media 3.0
JOUR 107 Race, Culture, Sex, and Mass Media Images 3.0
R-TV 01 Introduction to Electronic Media 3.0
Personal Options (minimum 3 units selected from the following):
BUSO 25 Business Communications 3.0
CHILD 61 Language Arts and Art Media for Young Children 3.0
ENGL 1B English - Introduction to Literary Types 3.0
ENGL 1BH English - Introduction to Literary Types - Honors 3.0
ENGL 8A Creative Writing - Fiction 3.0
ENGL 8B Creative Writing - Poetry 3.0
ENGL 8C Creative Writing - Novel 3.0
ENGL 8D Creative Writing - Poetry Collection 3.0
ENGL 8E Creative Writing - Memoir 3.0
ENGL 8F Creative Writing - Nonfiction 3.0
ENGL 9A Writing the Personal Journal 3.0
JOUR 101 Beginning Newswriting 3.0
or
JOUR 102 Intermediate Newswriting 3.0
JOUR 108 Writing for Public Relations 3.0
LIT 1 Early American Literature 3.0
or
LIT 2 Modern American Literature 3.0
LIT 6A Survey of English Literature 3.0
LIT 6B Survey of English Literature 3.0
LIT 40 Children's Literature 3.0
R-TV 05 Radio-TV Newswriting 3.0
SPCH 4 Performance of Literature 3.0

Total Units for Area of Emphasis 18.0

Associate in Arts degree in Liberal Arts and Sciences
Emphasis in Mathematics
Degree A8989

An emphasis in Mathematics provides the student with an understanding of college level mathematics. In addition to the foundational calculus courses, students may select from computer science programming options.

Required Courses:
(Minimum 18 units selected from the following with at most two CSCI courses)

- MATH 130 College Algebra 4.0
- MATH 140 Calculus for Business 4.0
- MATH 150 Trigonometry 3.0
- MATH 160 Precalculus Mathematics 4.0
- MATH 180 Calculus and Analytic Geometry 4.0
- MATH 181 Calculus and Analytic Geometry 5.0
- MATH 245 A Transition to Advanced Mathematics 3.0
- MATH 280 Calculus and Analytic Geometry 5.0
- MATH 285 Lin Algebra & Diff Equats 5.0
- CSCI 110 Fundamentals of Computer Science 3.5
- CSCI 140 C++ Language & Objects 4.0
- CSCI 145 Java Language and Object Oriented Programming 4.0

Total Units for Area of Emphasis 18.0

Recommended Electives:
- MATH 100 Survey of College Mathematics 3.0
- MATH 110 Elementary Statistics 3.0
- MATH 110H Elementary Statistics - Honors 3.0
- MATH 115 Statway II 5.0
- MATH 120 Finite Mathematics 3.0
- CHEM 50 General Chemistry I 5.0
- CHEM 50H General Chemistry I - Honors 5.0
- CHEM 51 General Chemistry II 5.0
- PHYS 4A Engineering Physics 5.0
- PHYS 4B Engineering Physics 5.0
- PHYS 4C Engineering Physics 5.0

Total Units 18.0 - 20.0

Strongly Recommended Electives:
- MUS 11B Music Literature Survey 3.0
- MUS 16 Individual Instruction 0.5
- MUS 9 Introduction to Music Technology 3.0

Associate in Arts degree in Liberal Arts and Sciences
Emphasis in Music
Degree A8990

An emphasis in Music provides the student with an understanding of music theory, harmony and the history of western music. In addition to the foundational Music courses, students select courses in piano and a performance ensemble.

Required Courses:

- MUS 2 Music Theory 3.0
- MUS 3A Harmony - Diatonic 3.0
- MUS 5A Musicianship - Ear Training and Sight Singing 1.0
- MUS 5B Musicianship - Diatonic 1.0
- MUS 11A Music Literature Survey 3.0
- MUS 16 Individual Instruction 0.5
- MUS 22 Conducting 1.5

Piano Select two (2) units from the following courses:
- MUS 17A Elementary Piano 1.0
- MUS 17B Intermediate Piano 1.0
- MUS 18 Advanced Piano 1.0

Performance Ensemble Select from the following courses:

- MUS 27 Chamber Music 1.5
- MUS 30 Collegiate Chorale 1.0
- MUS 31 Concert Choir 1.5
- MUS 34 Women's Vocal Ensemble 2.0
- MUS 36 Wind Symphony 1.0
- MUS 38 Ensemble 0.5
- MUS 39 Laboratory Band 2.0
- MUS 44 Vocal Jazz Ensemble 2.0
- MUS 45 Chamber Singers 2.0
- MUS 47 Jazz Ensemble 2.0
- MUS 48 Men's Vocal Ensemble 2.0
- MUS 49 Wind Ensemble 2.0

Total Units 18.0 - 20.0

Strongly Recommended Electives:

- MUS 11B Music Literature Survey 3.0
- MUS 16 Individual Instruction 0.5
- MUS 9 Introduction to Music Technology 3.0
## Programs of Study Leading to an Associate Degree

### Associate in Arts degree in Liberal Arts and Sciences

**Emphasis in Natural Sciences**

**Degree A8988**

An emphasis in Natural Sciences provides the student with an understanding of living and non-living systems and promotes an appreciation of the methodologies and tools of science. Students may select courses that focus on a specific major and then select complementary courses to strengthen their selected focus or they may select courses that strengthen and broaden their overall understanding of the Natural Sciences.

**Required Courses:**
- Select a minimum of 18 units from the following with at least one GE lab from each group.

**Group 1: Physical Sciences**
- ASTR 5L Introduction to Astronomy Laboratory 1.0
- ASTR 5H Introduction to Astronomy - Honors 3.0
- ASTR 7 Geology of the Solar System 3.0
- ASTR 8 Introduction to Stars, Galaxies, and the Universe 3.0
- CHEM 50H General Chemistry I Honors 5.0
- CHEM 50 General Chemistry I 5.0
- GEOL 1H Physical Geology - Honors 4.0
- GEOL 24 Geologic Field Studies: Central California 4.0
- GEOL 25 Geologic Field Studies: Southern California 4.0
- METO 3L Weather and the Atmospheric Environment Laboratory 1.0
- OCEA 10L Introduction to Oceanography Laboratory 1.0

**Group 2: Life Sciences**
- ANTH 1 Biological Anthropology 3.0
- ANTH 1H Biological Anthropology - Honors 3.0
- BIOL 1 General Biology 4.0
- BIOL 2 Plant and Animal Biology 4.0
- BIOL 3 Ecology and Field Biology 4.0
- BIOL 4 Biology for Majors 4.0
- BUSC 1A Principles of Economics - Macroeconomics 3.0
- BUSC 1AH Principles of Economics - Macroconomics - Honors 3.0
- BUSC 1B Principles of Economics - Microeconomics 3.0
- BUSC 1BH Principles of Economics - Microeconomics - Honors 3.0
- HIST 1 History of the United States 3.0
- HIST 7 History of the United States 3.0
- HIST 7H History of the United States - Honors 3.0

**Group 3: Social & Behavioral Sciences**
- BUSC 1B Principles of Economics - Microeconomics 3.0
- BUSC 1BH Principles of Economics - Microeconomics - Honors 3.0
- HIST 1 History of the United States 3.0
- HIST 7 History of the United States 3.0
- HIST 7H History of the United States - Honors 3.0

**Total Units**: 18.0

### Associate in Arts degree in Liberal Arts and Sciences

**Emphasis in Social & Behavioral Sciences**

**Degree A8991**

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

**Required Courses:**
- BUSC 1H Principles of Economics - Honors 3.0
- BUSC 1AH Principles of Economics - Macroconomics - Honors 3.0
- BUSC 1B Principles of Economics - Microeconomics 3.0
- BUSC 1BH Principles of Economics - Microeconomics - Honors 3.0
- HIST 1 History of the United States 3.0
- HIST 7 History of the United States 3.0
- HIST 7H History of the United States - Honors 3.0

**PLUS one of the following:**
- BUSC 1B Principles of Economics - Microeconomics 3.0
- BUSC 1BH Principles of Economics - Microeconomics - Honors 3.0
- HIST 1 History of the United States 3.0
- HIST 7 History of the United States 3.0
- HIST 7H History of the United States - Honors 3.0

**Total Units**: 18.0

### Associate in Arts degree in Liberal Arts and Sciences

**Emphasis in Cultural & Gender Diversity (minimum of 3 units selected from the following):**
- ANTH 1 Biological Anthropology 3.0
- ANTH 1H Biological Anthropology - Honors 3.0
- BUSC 1A Principles of Economics - Macroeconomics 3.0
- BUSC 1AH Principles of Economics - Macroconomics - Honors 3.0
- BUSC 1B Principles of Economics - Microeconomics 3.0
- BUSC 1BH Principles of Economics - Microeconomics - Honors 3.0
- HIST 1 History of the United States 3.0
- HIST 7 History of the United States 3.0
- HIST 7H History of the United States - Honors 3.0

**Total Units**: 18.0
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOC 14H</td>
<td>Marriage and the Family - Honors</td>
<td>3.0</td>
</tr>
<tr>
<td>SOC 20</td>
<td>Sociology of Ethnic Relations</td>
<td>3.0</td>
</tr>
<tr>
<td></td>
<td>or</td>
<td></td>
</tr>
<tr>
<td>SOC 20H</td>
<td>Sociology of Ethnic Relations - Honors</td>
<td>3.0</td>
</tr>
<tr>
<td>SPCH 7</td>
<td>Intercultural Communication</td>
<td>3.0</td>
</tr>
<tr>
<td></td>
<td>or</td>
<td></td>
</tr>
<tr>
<td>SPCH 7H</td>
<td>Intercultural Communication Honors</td>
<td>3.0</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 5</td>
<td>Contemporary Health Issues</td>
<td>3.0</td>
</tr>
<tr>
<td>BIOL 13</td>
<td>Human Repro Devel Aging</td>
<td>3.0</td>
</tr>
<tr>
<td>CHLD 1</td>
<td>Child, Family, School and Community</td>
<td>3.0</td>
</tr>
<tr>
<td>CHLD 10</td>
<td>Child Growth and Lifespan Development</td>
<td>3.0</td>
</tr>
<tr>
<td></td>
<td>or</td>
<td></td>
</tr>
<tr>
<td>CHLD 10H</td>
<td>Child Growth and Lifespan - Honors</td>
<td>3.0</td>
</tr>
<tr>
<td>PSYC 14</td>
<td>Developmental Psychology</td>
<td>3.0</td>
</tr>
<tr>
<td>PSYC 19</td>
<td>Abnormal Psychology</td>
<td>3.0</td>
</tr>
<tr>
<td>SOC 2</td>
<td>Contemporary Social Problems</td>
<td>3.0</td>
</tr>
<tr>
<td></td>
<td>or</td>
<td></td>
</tr>
<tr>
<td>SOC 2H</td>
<td>Contemporary Social Problems - Honors</td>
<td>3.0</td>
</tr>
<tr>
<td>SO 4</td>
<td>Introduction to Gerontology</td>
<td>3.0</td>
</tr>
<tr>
<td>SO 15</td>
<td>Child Development</td>
<td>3.0</td>
</tr>
</tbody>
</table>

**Biology as it Relates to Behavior or Society (minimum of 3 units selected from the following):**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANTH 1</td>
<td>Biological Anthropology</td>
<td>3.0</td>
</tr>
<tr>
<td>BIOL 6</td>
<td>Humans and the Environment</td>
<td>3.0</td>
</tr>
<tr>
<td>BIOL 17</td>
<td>Neurobiology and Behavior</td>
<td>3.0</td>
</tr>
<tr>
<td>BIOL 34</td>
<td>Fundamentals of Genetics</td>
<td>3.0</td>
</tr>
<tr>
<td>PSYC 1B</td>
<td>Biological Psychology</td>
<td>3.0</td>
</tr>
</tbody>
</table>

**Historical and Political Implications on Society (minimum of 3 units selected from the following):**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOG 8</td>
<td>The Urban World</td>
<td>3.0</td>
</tr>
<tr>
<td>HIST 1</td>
<td>History of the United States</td>
<td>3.0</td>
</tr>
<tr>
<td></td>
<td>or</td>
<td></td>
</tr>
<tr>
<td>HIST 7</td>
<td>History of the United States</td>
<td>3.0</td>
</tr>
<tr>
<td></td>
<td>or</td>
<td></td>
</tr>
<tr>
<td>HIST 7H</td>
<td>History of the United States - Honors</td>
<td>3.0</td>
</tr>
<tr>
<td></td>
<td>or</td>
<td></td>
</tr>
<tr>
<td>HIST 8</td>
<td>History of the United States</td>
<td>3.0</td>
</tr>
<tr>
<td></td>
<td>or</td>
<td></td>
</tr>
<tr>
<td>HIST 8H</td>
<td>History of the United States - Honors</td>
<td>3.0</td>
</tr>
</tbody>
</table>

**Other recommended electives include:**

- ANTH 3: Archaeology 3.0
- BUSM 60: Human Relations in Business 3.0
- CHLD 1: Child, Family, School and Community 3.0
- CHLD 73: Infant/Toddler Care and Development 3.0
- CHLD 85: Infants at Risk 3.0
- COUN 5: Career/Life Planning 3.0
- COUN 51: Career Planning 1.0
- ECS 41: Life Management 3.0
- LIBR 1: Information Resources and Research Methods 3.0
- LIT 3: Multicultural American Literature 3.0
- LIT 15: Introduction to Cinema 3.0
- LIT 20: African American Literature 3.0
- LIT 25: Contemporary Mexican American Literature 3.0
- PSYC 3: Introduction to Research Methods in Psychology 3.0
- PSYC 17: Introduction to Human Services 3.0
- PSYC 19: Abnormal Psychology 3.0
- PSYC 33: Psychology for Effective Living 3.0
- SL 2: Linked Service Learning 1.0

**Total Units: 18.0 - 19.0**

**Associate in Arts in Art History for Transfer: HUMA & SOCI**

**Humanities and Social Sciences Division Degree A0330**

The academic discipline of Art History involves the study of visual objects as both works of art and as artifacts of the historical and cultural contexts in which they were created. The Associate in Arts in Art History for Transfer (AA-AH) will provide the student with a solid foundation in both European and non-European art and visual culture from the periods of pre-history through modern. The degree program requires students to critically analyze visual objects from a variety of perspectives, utilizing various modes of analysis.

To earn an Associate in Arts in Art History for Transfer, a student must complete 60 semester units that are eligible for transfer to the CSU that consist of: IGEC or CSU GE breadth and a major of at least 18 units. Students must have a minimum GPA of 2.0 in all CSU-transferable coursework to receive an associate degree for transfer and all courses in the major must be completed with a C or better. Students earning an associate degree for transfer will not be required to complete any other local graduation requirements.

**Required Courses: Core Courses (9 units)**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AHIS 4</td>
<td>History of Western Art: Prehistoric Through Gothic</td>
<td>3.0</td>
</tr>
<tr>
<td>AHIS 4H</td>
<td>History of Western Art: Prehistoric Through Gothic - Honors</td>
<td>3.0</td>
</tr>
<tr>
<td>AHIS 5</td>
<td>History of Western Art: Renaissance Through Modern</td>
<td>3.0</td>
</tr>
<tr>
<td>AHIS 5H</td>
<td>History of Western Art: Renaissance Through Modern - Honors</td>
<td>3.0</td>
</tr>
<tr>
<td>ARTD 15A</td>
<td>Drawing: Beginning</td>
<td>3.0</td>
</tr>
</tbody>
</table>

**List A select one (3 units):**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AHIS 9</td>
<td>History of Asian Art and Architecture</td>
<td>3.0</td>
</tr>
<tr>
<td>AHIS 11</td>
<td>History of African, Oceanic, and Native American Art</td>
<td>3.0</td>
</tr>
</tbody>
</table>

**Associate in Science for Transfer Degree (AS-T):**

**Mathematics**

**Music**

**Communication Studies**

**Politics Science**

**English**

**Psychology**

**Geography**

**History**

Recent legislation requires that all California Community Colleges create associate degrees for transfer. To earn an “associate degree for transfer” a student must complete 60 semester units that are eligible for transfer to the CSU that consist of: IGEC or CSU GE breadth, and a major or area of emphasis of at least 18 units. Students must have a minimum GPA of 2.0 to receive an associate degree for transfer. Students earning an associate degree for transfer will not be required to complete any other local graduation requirements.

California Community College students who are awarded an AA-T or AS-T degree are guaranteed admission with junior standing somewhere in the CSU system and given priority consideration to their local CSU campus or to a program that is deemed similar to their community college major. This priority does not guarantee admission to specific majors or campuses.
Associate in Arts in Communication Studies for Transfer

Humanities and Social Sciences Division

**Degree A0325**

Communication Studies is a broad-based discipline with foundational coursework in oral communication theory and skills development, augmented with course options that add dimension and depth to the student's understanding of the discipline—such as interpersonal, group, organizational and intercultural communication, argumentation, journalism, forensics, and communication research methods.

The degree program requires students to critically analyze information and arguments, select and research an appropriate topic and thesis, and logically organize the supporting material into a well-crafted presentation. Students will employ appropriate verbal and nonverbal delivery skills and visual aids to present a message to an audience in a conversational and confident manner; and formulate communication solutions to problems in a range of contexts. Students will create messages appropriate for diverse audiences and listeners and develop an improved understanding of themselves as communicators.

To earn an Associate in Arts in Communication Studies for Transfer a student must complete 60 semester units that are eligible for transfer to the CSU that consist of IGETC or CSU-GE breadth and a major of at least 18 units. Students must have a minimum GPA of 2.0 in all CSU-transferable coursework to receive an associate degree for transfer and all courses in the major must be completed with a C or better. Students earning an associate degree for transfer will not be required to complete any other local graduation requirements.

**Required Courses:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPCH 1A</td>
<td>4.0</td>
</tr>
<tr>
<td>or</td>
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</tr>
<tr>
<td>SPCH 1AH</td>
<td>4.0</td>
</tr>
<tr>
<td>SPCH 6</td>
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<tr>
<td>SPCH 20</td>
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</tbody>
</table>

**List A:** Select any 2 courses from the following (6 units)

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
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<tbody>
<tr>
<td>ENGL 1CH</td>
<td>4.0</td>
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<tr>
<td>or</td>
<td></td>
</tr>
<tr>
<td>JOUR 101</td>
<td>3.0</td>
</tr>
<tr>
<td>or</td>
<td></td>
</tr>
<tr>
<td>SPCH 3</td>
<td>3.0</td>
</tr>
<tr>
<td>or</td>
<td></td>
</tr>
<tr>
<td>SPCH 8</td>
<td>4.0</td>
</tr>
</tbody>
</table>

**List B:** Select any 2 courses from the following (6 units)

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPCH 2</td>
<td>3.0</td>
</tr>
<tr>
<td>or</td>
<td></td>
</tr>
<tr>
<td>SPCH 7</td>
<td>3.0</td>
</tr>
<tr>
<td>or</td>
<td></td>
</tr>
<tr>
<td>SPCH 20H</td>
<td>4.0</td>
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</tbody>
</table>

**List C:** Select at least 1 course from the following (3 units)

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>JOUR 100</td>
<td>3.0</td>
</tr>
<tr>
<td>or</td>
<td></td>
</tr>
<tr>
<td>JOUR 101</td>
<td>3.0</td>
</tr>
<tr>
<td>or</td>
<td></td>
</tr>
<tr>
<td>SPCH 7H</td>
<td>3.0</td>
</tr>
</tbody>
</table>

*Courses may be double-counted with either CSU-GE or IGETC.*

**Degree Total:** 60.0

Associate in Arts in English for Transfer

Humanities and Social Sciences Division

**Degree A0332**

The Associate in Arts in English for Transfer introduces students to Literature written in English and gives them the option of studying creative writing. Completion of the degree provides students with the core skills and knowledge needed to pursue a baccalaureate degree in English. Those core skills and knowledge include the ability to analyze literature and the ability to write researched analytical papers. Students who earn this degree will be able to write a literary analysis, analyze major themes and concerns in literature, and identify the influence of culture on human expression.

To earn an Associate in Arts in English for Transfer a student must complete 60 semester units that are eligible for transfer to the CSU that consist of IGETC pattern or CSU-GE breadth and a major of at least 18 units. Students must have a minimum GPA of 2.0 in all CSU-transferable coursework to receive an associate degree for transfer and all courses in the major must be completed with a C or better. Students earning an associate degree for transfer will not be required to complete any other local graduation requirements.

**Required Courses:**

<table>
<thead>
<tr>
<th>Core Courses: (7 units)</th>
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</thead>
<tbody>
<tr>
<td>ENGL 1B</td>
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<tr>
<td>or</td>
</tr>
<tr>
<td>ENGL 18H</td>
</tr>
<tr>
<td>and</td>
</tr>
<tr>
<td>ENGL 1C</td>
</tr>
<tr>
<td>or</td>
</tr>
<tr>
<td>ENGL 1CH</td>
</tr>
</tbody>
</table>

**List A:** Select two (6 units)

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>LIT 1</td>
<td>Early American Literature</td>
</tr>
<tr>
<td>or</td>
<td></td>
</tr>
<tr>
<td>LIT 2</td>
<td>Modern American Literature</td>
</tr>
<tr>
<td>or</td>
<td></td>
</tr>
<tr>
<td>LIT 6A</td>
<td>Survey of English Literature</td>
</tr>
<tr>
<td>Program</td>
<td>Units</td>
</tr>
<tr>
<td>--------------------------------</td>
<td>-------</td>
</tr>
<tr>
<td><strong>Associate in Arts in History for Transfer Degree</strong></td>
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<tr>
<td>Humanities and Social Sciences Division</td>
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<td>Degree AO334</td>
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</tr>
<tr>
<td>History is a broad-based academic discipline with foundational coursework in both World History and The History of the United States, augmented with course options that add dimension and depth to the student's understanding of the discipline—such as history courses outside of the Western World, courses in the humanities or social sciences (including history) that address any historically under-represented group or non-western subject matter fulfilling transfer level GE categories and courses in foreign languages.</td>
<td></td>
</tr>
<tr>
<td>The degree program requires students to critically analyze material from a variety of sources and to develop links and connections in abstracting fundamental meaning of historical data. The course distribution of the degree will expose the students to the complexity and diversity of the historical past, thus placing the present day issues and problems within a meaningful historical context.</td>
<td></td>
</tr>
<tr>
<td>To earn an Associate in Arts in History for Transfer a student must complete 60 semester units that are eligible for transfer to the CSU that consist of: IGETC or CSU GE breadth and a major of at least 18 units. Students must have a minimum GPA of 2.0 in all CSU-transferable coursework to receive an associate degree for transfer and all courses in the major must be completed with a C or better. Students earning an associate degree for transfer will not be required to complete any other local graduation requirements.</td>
<td></td>
</tr>
<tr>
<td>Required Courses:</td>
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<tr>
<td>Required Core (7 units)</td>
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</tr>
<tr>
<td>GEOG 1 Elements of Physical Geography</td>
<td>3.0</td>
</tr>
<tr>
<td>GEOG 1H Elements of Physical Geography - Honors</td>
<td>3.0</td>
</tr>
<tr>
<td>GEOG 1L Physical Geography Laboratory</td>
<td>1.0</td>
</tr>
<tr>
<td>GEOG 1LH Physical Geography Laboratory - Honors</td>
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</tr>
<tr>
<td>GEOG 2 Human Geography</td>
<td>3.0</td>
</tr>
<tr>
<td>GEOG 2H Human Geography - Honors</td>
<td>3.0</td>
</tr>
<tr>
<td>GEOG 5 World Regional Geography</td>
<td>3.0</td>
</tr>
<tr>
<td>GEOG 3D Geography of California</td>
<td>3.0</td>
</tr>
<tr>
<td>GEOG 3OH Geography of California - Honors</td>
<td>3.0</td>
</tr>
<tr>
<td>GEOG 10 Introduction to Geographic Information Systems</td>
<td>3.0</td>
</tr>
<tr>
<td><strong>List B:</strong> (3 units)</td>
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</tr>
<tr>
<td>ANTH 5 Principles of Cultural Anthropology</td>
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</tr>
<tr>
<td>Total Units for Major</td>
<td>19.0</td>
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<tr>
<td>CSU General Education</td>
<td>39.0 - 42.0</td>
</tr>
<tr>
<td>or IGETC Pattern</td>
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</tr>
<tr>
<td>Courses may be double-counted with either CSU-GE or IGETC.</td>
<td></td>
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<tr>
<td>Degree Total</td>
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**List A:** Select two: (6 units)

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
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<tbody>
<tr>
<td>HIST 3 World History: Prehistoric</td>
<td>3.0</td>
</tr>
<tr>
<td>to Early Modern</td>
<td></td>
</tr>
<tr>
<td>or</td>
<td></td>
</tr>
<tr>
<td>HIST 3H World History: Prehistoric</td>
<td>3.0</td>
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<tr>
<td>to Early Modern - Honors</td>
<td></td>
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<tr>
<td>and</td>
<td></td>
</tr>
<tr>
<td>HIST 4 World History: Early Modern</td>
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</tr>
<tr>
<td>to the Present</td>
<td></td>
</tr>
<tr>
<td>or</td>
<td></td>
</tr>
<tr>
<td>HIST 4H World History: Early Modern</td>
<td>3.0</td>
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<tr>
<td>to the Present - Honors</td>
<td></td>
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**List A Select two: (6 units)**

**Group 1: Diversity Course**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>AHIS 9 History of Asian Art and Architecture</td>
<td>3.0</td>
</tr>
<tr>
<td>AHIS 11 History of African, Oceanic, and Native American Art</td>
<td>3.0</td>
</tr>
<tr>
<td>AHIS 12 History of Peculciun Art and Architecture</td>
<td>3.0</td>
</tr>
<tr>
<td>AHIS 12H History of Peculciun Art and Architecture - Honors</td>
<td>3.0</td>
</tr>
<tr>
<td>ARAB 1 Elementary Arabic</td>
<td>4.0</td>
</tr>
<tr>
<td>ARAB 2 Continuing Elementary Arabic</td>
<td>4.0</td>
</tr>
<tr>
<td>CHIN 1 Elementary Chinese</td>
<td>4.0</td>
</tr>
<tr>
<td>CHIN 2 Continuing Elementary Chinese</td>
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<tr>
<td>CHIN 3 Intermediate Chinese</td>
<td>4.0</td>
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<tr>
<td>CHIN 4 Continuing Intermediate Chinese</td>
<td>4.0</td>
</tr>
<tr>
<td>FRCH 1 Elementary French</td>
<td>4.0</td>
</tr>
<tr>
<td>FRCH 2 Continuing Elementary French</td>
<td>4.0</td>
</tr>
<tr>
<td>FRCH 3 Intermediate French</td>
<td>4.0</td>
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<tr>
<td>FRCH 4 Continuing Intermediate French</td>
<td>4.0</td>
</tr>
<tr>
<td>FRCH 5 Advanced French</td>
<td>4.0</td>
</tr>
<tr>
<td>FRCH 6 Continuing Advanced French</td>
<td>4.0</td>
</tr>
<tr>
<td>GERM 1 Elementary German</td>
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<tr>
<td>GERM 2 Continuing Elementary German</td>
<td>4.0</td>
</tr>
<tr>
<td>GERM 3 Intermediate German</td>
<td>4.0</td>
</tr>
<tr>
<td>HIST 10 History of Premodern Asia</td>
<td>3.0</td>
</tr>
<tr>
<td>HIST 11 History of Modern Asia</td>
<td>3.0</td>
</tr>
<tr>
<td>HIST 19 History of Mexico</td>
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</tr>
<tr>
<td>HIST 30 History of the African American 1619-1877</td>
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</tr>
<tr>
<td>HIST 31 History of the African American</td>
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</tr>
<tr>
<td>HIST 35 History of Africa</td>
<td>3.0</td>
</tr>
<tr>
<td>HIST 36 Women in American History</td>
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</table>
### Programs of Study Leading to an Associate Degree

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>HIST 40</td>
<td>History of the Mexican American</td>
<td>3.0</td>
</tr>
<tr>
<td>HIST 44</td>
<td>History of Native Americans</td>
<td>3.0</td>
</tr>
<tr>
<td>ITAL 1</td>
<td>Elementary Italian</td>
<td>4.0</td>
</tr>
<tr>
<td>ITAL 2</td>
<td>Continuing Elementary Italian</td>
<td>4.0</td>
</tr>
<tr>
<td>ITAL 3</td>
<td>Intermediate Italian</td>
<td>4.0</td>
</tr>
<tr>
<td>ITAL 4</td>
<td>Continuing Intermediate Italian</td>
<td>4.0</td>
</tr>
<tr>
<td>JAPN 1</td>
<td>Elementary Japanese</td>
<td>4.0</td>
</tr>
<tr>
<td>JAPN 2</td>
<td>Continuing Elementary Japanese</td>
<td>4.0</td>
</tr>
<tr>
<td>JAPN 3</td>
<td>Intermediate Japanese</td>
<td>4.0</td>
</tr>
<tr>
<td>JAPN 4</td>
<td>Continuing Intermediate Japanese</td>
<td>4.0</td>
</tr>
<tr>
<td>JAPN 5</td>
<td>Advanced Japanese</td>
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</tr>
<tr>
<td>LATN 1</td>
<td>Elementary Latin</td>
<td>4.0</td>
</tr>
<tr>
<td>LATN 2</td>
<td>Continuing Elementary Latin</td>
<td>4.0</td>
</tr>
<tr>
<td>LIT 20</td>
<td>African American Literature</td>
<td>3.0</td>
</tr>
<tr>
<td>LIT 25</td>
<td>Contemporary Mexican American</td>
<td>3.0</td>
</tr>
<tr>
<td>POLI 25</td>
<td>Latino Politics in the United States</td>
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</tr>
<tr>
<td>POLI 35</td>
<td>African American Politics</td>
<td>3.0</td>
</tr>
<tr>
<td>SPAN 1</td>
<td>Elementary Spanish</td>
<td>4.0</td>
</tr>
<tr>
<td>SPAN 2</td>
<td>Continuing Elementary Spanish</td>
<td>4.0</td>
</tr>
<tr>
<td>SPAN 3</td>
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<tr>
<td>SPAN 4</td>
<td>Continuing Intermediate Spanish</td>
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</tr>
<tr>
<td>SIGN 101</td>
<td>American Sign Language 1</td>
<td>4.0</td>
</tr>
<tr>
<td>SIGN 102</td>
<td>American Sign Language 2</td>
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<td>SIGN 103</td>
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<tr>
<td>SIGN 104</td>
<td>American Sign Language 4</td>
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</tr>
<tr>
<td>SIGN 202</td>
<td>African American Culture</td>
<td>3.0</td>
</tr>
</tbody>
</table>

**Group 2: History-Related Humanities Course**

- AHIS 1: Understanding the Visual Arts
- 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 and Architecture
- AHIS 10: A History of Greek and Roman Art and Architecture

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AHIS 11</td>
<td>History of African, Oceanic, and Native American Art</td>
<td>3.0</td>
</tr>
<tr>
<td>AHIS 12</td>
<td>History of Pre Columbian Art and Architecture</td>
<td>3.0</td>
</tr>
<tr>
<td>AHIS 12H</td>
<td>History of Pre Columbian Art and Architecture - Honors</td>
<td>3.0</td>
</tr>
<tr>
<td>ANTH 5</td>
<td>Principles of Cultural Anthropology</td>
<td>3.0</td>
</tr>
<tr>
<td>ANTH 22</td>
<td>General Cultural Anthropology</td>
<td>3.0</td>
</tr>
<tr>
<td>ANTH 30</td>
<td>The Native American</td>
<td>3.0</td>
</tr>
<tr>
<td>ARBT 1</td>
<td>Understanding the Visual Arts</td>
<td>3.0</td>
</tr>
<tr>
<td>DN-T 20</td>
<td>History and Appreciation of Dance</td>
<td>3.0</td>
</tr>
<tr>
<td>GEOG 2</td>
<td>Human Geography</td>
<td>3.0</td>
</tr>
<tr>
<td>GEOG 2H</td>
<td>Human Geography - Honors</td>
<td>3.0</td>
</tr>
<tr>
<td>GEOG 5</td>
<td>World Regional Geography</td>
<td>3.0</td>
</tr>
<tr>
<td>HIST 39</td>
<td>California History</td>
<td>3.0</td>
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<tr>
<td>HUMA 1</td>
<td>The Humanities</td>
<td>3.0</td>
</tr>
<tr>
<td>LIT 1A</td>
<td>World Literature to 1650</td>
<td>3.0</td>
</tr>
<tr>
<td>LIT 1B</td>
<td>World Literature from 1650</td>
<td>3.0</td>
</tr>
<tr>
<td>MUS 12</td>
<td>History of Jazz</td>
<td>3.0</td>
</tr>
<tr>
<td>MUS 14A</td>
<td>World Music</td>
<td>3.0</td>
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<tr>
<td>MUS 14B</td>
<td>American Folk Music</td>
<td>3.0</td>
</tr>
<tr>
<td>MUS 15</td>
<td>Rock Music History and Appreciation</td>
<td>3.0</td>
</tr>
<tr>
<td>PHOT 15</td>
<td>History of Photography</td>
<td>3.0</td>
</tr>
<tr>
<td>THTR10</td>
<td>History of Theater Arts</td>
<td>3.0</td>
</tr>
</tbody>
</table>

**Total Units for Major:** 18.0 - 19.0

**CSU-GE or IGETC Pattern**

Courses may be double-counted with either CSU-GE or IGETC.

**Degree Total:** 60.0

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### Associate in Arts in Music for Transfer

**Arts Division Degree A0347**

Music is a broad-based academic discipline with foundational coursework in theory and performance. By providing a theoretical understanding of the development and creation of music, along with requisite technical proficiency, it is expected that these skills will be used to demonstrate musical sensitivity and creativity as a soloist or in the context of a musical ensemble. To further foster these skills, optional courses in the areas of piano and music history should also be taken. The degree requires four semesters of theory, four semesters of applied music (lessons), and four semesters of musical ensemble to provide the skills necessary for transferring to a 4-year institution to pursue a degree in music, including composition, performance, and/or music education.

To earn an associate degree for transfer, a student must complete 60 semester units that are eligible for transfer to a CSU that consist of: IGETC pattern or CSU GE breadth and a major of at least 18 units. Students must have a minimum GPA of 2.0 in all CSU-transferable coursework to receive an associate degree for transfer and all courses in the major must be completed with a C or better. Students earning an associate degree for transfer will not be required to complete any other local graduation requirements.

**Required Courses:**

- **Theory & Musicianship (16 units)**
  - MUS 2: Music Theory
  - MUS 5A: Musician- Ear Training and Sight Singing

- **or**

- **Applied Music: 4 semesters, 0.5 units each (2 units)**
  - MUS 16: Individual Instruction

**Ensemble: 6 units or 4 semesters, variable 1.5 - 2.0 units each (5-8 units)**

- MUS 27: Chamber Music
- MUS 31: Concert Choir
- MUS 34: Women’s Vocal Ensemble
- MUS 39: Laboratory Band
- MUS 45: Chamber Singers
- MUS 47: Jazz Ensemble
- MUS 48: Men’s Vocal Ensemble

**Total Units for Major:** 23.0 - 26.0

**CSU General Education:** 39.0 - 42.0

**or IGETC Pattern**

Courses may be double-counted with either CSU-GE or IGETC.

**Degree Total:** 60.0

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### Associate in Arts in Political Science for Transfer

**Humanities and Social Sciences Division Degree A0345**

Political Science introduces students to political science theories and methodologies used in the scientific study of political institutions and behavior. The Associate in Arts in Political Science for Transfer degree will provide students with the foundational knowledge necessary to identify research and statistical methods appropriate to political science, to compare and contrast the major theoretical perspectives in political science, and synthesize the analysis of institutions and individuals. The Associate in Arts in Political Science for Transfer degree is designed to assist students in seamlessly transferring to a CSU major in Political Science.

To earn an associate degree for transfer, a student must complete 60 semester units that are eligible for transfer to a CSU that consist of: IGETC pattern or CSU GE breadth and a major of at least 18 units. Students must have a minimum GPA of 2.0 in all CSU-transferable coursework to receive an associate degree for transfer and all courses in the major must be completed with a C or better. Students earning an associate degree for transfer will not be required to complete any other local graduation requirements.

**Required Courses:**

- **Core course:** (3 units)
  - POLI 1: Political Science

- **or**
  - POLI 1H: Political Science - Honors

- **List A select three:** (9-10 units)
  - MATH 110: Elementary Statistics

- **or**

- **List B:**
  - MUS 49: Wind Ensemble
  - MUS 50: Jazz Improvisation
<table>
<thead>
<tr>
<th>Program</th>
<th>Description</th>
</tr>
</thead>
</table>
| **Associate in Arts in Psychology for Transfer** | Humanities and Social Sciences Division Degree A0324
The Associate in Arts in Psychology for Transfer introduces students to the psychological principles and methodologies used in the scientific study of mental processes and behaviors. Students will acquire the foundational knowledge necessary to pursue post-secondary degrees in psychology and a variety of specialization in the field. The goals of this degree are to prepare students to identify research and statistical methods appropriate to psychology, to compare and contrast the major theoretical perspectives in psychology, and synthesize the relationships between biological and behavioral functions.
To earn an associate degree for transfer, a student must complete 60 semester units that are eligible for transfer to CSU that consist of: IGETC pattern or CSU GE breadth and a major of at least 18 units.

**Required Courses:**
- **Core Courses:** (10-11 Units)
  - PSYC 1A Introduction to Psychology - Honors 3.0
  - PSYC 1AH Introduction to Psychology 3.0
  - PSYC 1B Introduction to Psychology - Honors 3.0
  - PSYC 1BH Introduction to Psychology - Honors 3.0
- **List A:** Select one: (3-4 Units)
  - PSYC 10 Statistics for the Behavioral Sciences 4.0
  - MATH 110H Elementary Statistics - Honors 3.0
  - MATH 110H Elementary Statistics - Honors 3.0
  - PSYC 5 Psychology of Reasoning and Problem Solving 3.0
  - PSYC 10 Statistics for the Behavioral Sciences 4.0
- **List B:** Select two courses from the following or any course not selected from List A: (6 units)
  - BIOL 1 General Biology 4.0
  - BIOL 1H General Biology - Honors 4.0
  - PHIL 3 Logic in Practice 3.0
  - PHIL 3H Logic in Practice - Honors 3.0
  - PHIL 8 Critical Thinking 3.0
  - PHIL 8H Critical Thinking - Honors 3.0
  - SOC 1 Sociology 3.0
  - SOC 1H Sociology - Honors 3.0
  - SOC 15 Child Development 3.0
  - SOC 15H Child Development - Honors 3.0
- **List C:** Select one course from the following or any course not selected from List A or List B: (3 or more units)
  - PSYC 3 Research Methods/Psych 4.0
  - PSYC 3 Research Methods/Psych 4.0
  - PSYC 3 Research Methods/Psych 4.0

**Total Units for Major:** 18.0 - 19.0

**CSU General Education or IGETC Pattern**
Courses may be double-counted with either CSU-GE or IGETC.

**Degree Total:** 60.0

**Associate in Arts in Theater Arts for Transfer** | Arts Division Degree A0346
The Associate in Arts in Theater Arts for Transfer develops confidence, improves communication skills and provides experiences to work in a collaborative endeavor. In each course, students learn to perfect the skills needed for the discipline of theater while learning to work cooperatively with others in theater-related disciplines. The program emphasizes self-reliance and creative problem solving along with personal artistic development. To earn an Associate in Arts in Theater, a student must complete 60 semester units that are eligible for transfer to the CSU that consist of: IGETC pattern or CSU GE breadth and a major of at least 18 units. The degree allows students the flexibility to pursue a particular area of interest, however, any student who completes the AA-T in Theater Arts will be prepared to pursue an emphasis in acting, technical theater, design, playwriting or general theater. The degree is intended to help the student make an uninterrupted transition to a C.S.U. Students must have a minimum GPA of 2.0 in all major requirements to receive an Associate in Arts in Theater for
Programs of Study Leading to an Associate Degree

Transfer degree and all courses in the major must be completed with a C or better. Students earning an Associate in Arts in Theater for Transfer degree will not be required to complete any other local graduation requirements.

Required Courses:
Core Courses: (9 units)
- THTR 9 Introduction to Theater Arts 3.0
- THTR 10 History of Theater Arts 3.0
- THTR 11 Principles of Acting I 3.0
- THTR 15 Play Rehearsal and Performance 1.0 - 3.0

List A: Select three courses (9 - 9.5 units)
- THTR 12 Principles of Acting II 3.0
- THTR 14 Stagecraft 3.0
- THTR 16 Theatrical Make-Up 3.0
- THTR 18 Technical Theater Practicum 1.0
- THTR 19 Theatrical Costuming 3.0

Total Units for Major 18.0 - 18.5

CSU General Education 39.0 - 42.0
or IGETC Pattern

Courses may be double-counted with either CSU-GE or IGETC.

Degree Total 60.0

Associate in Science in Administration of Justice for Transfer
Technology and Health Division
Degree S0362

The Associate in Science in Administration of Justice for Transfer provides a broad base of education in the discipline. Students will acquire the ability to identify and apply legal precedents in field work, be prepared to understand the use of criminal codes in the investigation and documentation of crime, and become familiarized with the social factors that involve police interaction within the community. The degree will support students interested in branching out into undergraduate studies in the social sciences.

To earn an associate degree for transfer, a student must complete 60 semester units that are eligible for transfer to CSU that consist of: IGETC pattern or CSU GE breadth and a major of at least 18 units. Students must have a minimum GPA of 2.0 in all CSU-transferable coursework to receive an associate degree for transfer and all courses in the major must be completed with a C or better. Students earning an associate degree for transfer will not be required to complete any other local graduation requirements.

Required Courses:
List A: Required Courses: (6 units)
- ADJU 1 The Administration of Justice System 3.0
- ADJU 3 Concepts of Criminal Law 3.0

List B Choose any two of the following (6 units)
- ADJU 2 Principles and Procedures of the Justice System 3.0
- ADJU 4 Legal Aspects of Evidence 3.0
- ADJU 5 Community Relations 3.0
- ADJU 20 Principles of Investigation 3.0
- ADJU 50 Introduction to Forensics 3.0

List C Choose any two of the following courses (6 units)
- MATH 110 Elementary Statistics 3.0
- MATH 110H Elementary Statistics - Honors 3.0
- PSYC 1A Introduction to Psychology 3.0
- PSYC 1AH Introduction to Psychology - Honors 3.0
- SOC 1 Sociology 3.0
- SOC 1H Sociology - Honors 3.0

Total Units for Major 18.0

CSU General Education 39.0 - 42.0
or IGETC Pattern

Courses may be double-counted with either CSU-GE or IGETC.

Degree Total 60.0

Additional Notations
In addition to List C, any CSU transferable Administration of Justice lower division course or courses outside the Administration of Justice discipline that are articulated as lower division major preparation for the Criminal Justice or Criminology Major at any CSU.

Associate in Science in Mathematics for Transfer
Natural Sciences Division
Degree S0333

Upon successful completion of Mt. San Antonio College’s Associate in Science in Mathematics for Transfer degree requirements, the student will have demonstrated understanding of differential and integral calculus of one and several variables including infinite series, vector analysis, partial derivatives and transcendental functions, as well as demonstrating knowledge of linear algebra and differential equations. This coursework will satisfy the lower division mathematics requirements at the California State University. Guaranteed admission with junior status to the CSU system will be granted in mathematics (or possibly statistics).

To earn an Associate in Science in Mathematics for Transfer a student must complete 60 semester units that are eligible for transfer to the CSU that consist of: IGETC pattern or CSU GE breadth and a major of at least 18 units. Students must have a minimum GPA of 2.0 in all CSU-transferable coursework to receive an associate degree for transfer and all courses in the major must be completed with a C or better. Students earning an associate degree for transfer will not be required to complete any other local graduation requirements.

Required Courses:
Core Courses: (14 units)
- MATH 180 Calculus and Analytic Geometry 4.0
- MATH 181 Calculus and Analytic Geometry 5.0
- MATH 280 Calculus and Analytic Geometry 5.0

List A: (5 units)
- MATH 285 Linear Algebra 5.0
  and Differential Equations

List B select one: (3 - 5 or more units)
- CSCI 140 C++ Language 4.0
  and Object Development
- MATH 110 Elementary Statistics 3.0
  or
- MATH 110H Elementary Statistics - Honors 3.0
- MATH 120 Finite Mathematics 3.0
- PHYS 4A Engineering Physics 5.0

Total Units for Major 22.0 - 24.0

CSU General Education 39.0 - 42.0
or IGETC Pattern

Courses may be double-counted with either CSU-GE or IGETC.

Degree Total 60.0
SECTION NINE

Transferring to Four-Year Colleges and Universities

Committed to Student Success
Transferring to Four-Year Colleges and Universities

THE CALIFORNIA STATE UNIVERSITY

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. 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.
- Students are advised to complete major preparation classes prior to transfer. For some majors/campuses, these courses may be required for admission. Consult university websites, counselors/advisors, and visit Mt. SAC Transfer Services for more information. Also, visit www.assist.org to find community college courses that fulfill major requirements.

Note: These are the minimum admission standards. Many campuses and majors are impacted (more competitive) and may require a higher GPA and/or completion of specific courses for admission.

Lower Division Transfer Admission Requirements
Please be aware that most CSU campuses do not admit lower-division transfer students. California residents may be eligible for CSU admission with fewer than 60 transferable semester units (90 quarter units) if they:

- Have a college grade point average of 2.00 or better in all transferable college units attempted.
- Are in good standing at the last college or university attended, i.e., eligible to re-enroll.
- Meet the admission requirements for a first-time freshman or have successfully completed necessary courses to make up the deficiencies from high school if the student 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 the transfer campus of choice to determine whether there are admission limits on the number of lower-division transfer students.
The requirements listed below are for the 2014-2015 academic year and are based upon information available at the time of catalog publication.

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 2014 must follow 2014-2015 CSU GE-Breadth requirements. Courses are approved for courses are grouped in five areas, A through E. A maximum of 30 units may be certified from Areas B through D with a counselor or educational advisor for advice on satisfying General Education-Breadth Requirements. Courses are approved for courses taken to meet General Education-Breadth Requirements will be honored if they are on the list during the year taken. The English Language and Critical Thinking (9 units) Select one course from each group:

A-1: Oral Communication:
- SPCH 1A Public Speaking
- SPCH 1AH Public Speaking – Honors
- SPCH 2 Fundamentals of Communication
- SPCH 8 Professional and Organizational Speaking
- SPCH 8H Professional and Organizational Speaking – Honors

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

A-3: Critical Thinking:
- ENGL 1C Critical Thinking and Writing
- ENGL 1CH Critical Thinking and Writing – Honors
- PHIL 3 Logic in Practice
- PHIL 3H Logic in Practice – Honors
- PHIL 8 Critical Thinking
- PHIL 9 Critical Analysis and Writing
- PHIL 9H Critical Analysis and Writing – Honors
- PSYC 5 Psychology of Reasoning and Problem Solving
- SPCH 1B Intermediate Public Speaking
- SPCH 20 Argumentation and Debate
- SPCH 20H Argumentation and Debate – Honors

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 –
- ASTR 5 Introduction to Astronomy
- ASTR 5H Introduction to Astronomy – Honors
- ASTR 5L Astronomical Observing Laboratory
- ASTR 7 Geology of the Solar System
- ASTR 8 Introduction to Stars, Galaxies and the Universe
- +CHEM 10 Chemistry for Allied Health Majors
- +CHEM 20 Introductory Organic and Biochemistry
- +CHEM 40 Introduction to General Chemistry
- +CHEM 50 General Chemistry I
- +CHEM 50H General Chemistry I – Honors
- +CHEM 51 General Chemistry II
- GEOG 1 Elements of Physical Geography
- GEOG 1H Elements of Physical Geography – Honors
- +GEOG 1L Physical Geography Laboratory
- +GEOG 1HL Physical Geography Laboratory – Honors
- +GEOL 1 Physical Geology
- +GEOL 1H Physical Geology – Honors
- +GEOL 2 Geology of California
- +GEOL 6 Earth Science
- +GEOL 6H Earth Science – Honors
- +GEOL 8L Earth Science Laboratory
- +GEOL 9 Environmental Geology
- +GEOL 10 Natural Disasters
- +METO 3 Weather and the Atmospheric Environment
- +METO 3L Weather and Atmospheric Environment Laboratory
- +OCEA 10 Introduction to Oceanography
- +OCEA 10H Introduction to Oceanography – Honors
- +PHSC 3 Energy Science
- PHSC 7 Physical Science
- PHSC 7L Physical Science Laboratory
- +PHYS 1 Physics
- +PHYS 2AG General Physics
- +PHYS 2BG General Physics
- +PHYS 4A Engineering Physics
- +PHYS 4B Engineering Physics
- +PHYS 4C Engineering Physics

B-2: Life Science
Select at least one course from the following list:
- AGOR 1 Horticultural Science
- +ANAT 10A Introductory Human Anatomy
- +ANAT 10B Introductory Human Physiology
- +ANAT 35 Human Anatomy
- +ANAT 36 Human Physiology
- ANTH 1H Biological Anthropology – Honors
- +ANTE 1L Biological Anthropology Laboratory
- +BIOL 1 General Biology
- +BIOL 2 Plant and Animal Biology
- +BIOL 3 Ecology and Field Biology
- +BIOL 4 Biology for Majors
- +BIOL 4H Biology for Majors – Honors
- +BIOL 6L Humans and the Environment Laboratory
- +BIOL 8 Cell and Molecular Biology
- +BIOL 17 Neurobiology and Behavior
- +BIOL 20 Marine Biology
- +BIOL 21 Marine Biology Laboratory
- +BIOL 34 Fundamentals of Genetics
- +BIOL 34L Fundamentals of Genetics Laboratory
- +MICR 1 Principles of Microbiology
- +MICR 22 Microbiology
- PSYC 18 Biological Psychology

B-3: Lab Science
This requirement is met by taking ONE of the courses above indicated by a “+” sign. Lab must be a corresponding section to the lecture course taken.

B-4: Mathematics
Select at least one course from the following list:
- BUSC 17 Applied Business Statistics
- MATH 100 Survey of College Mathematics
- MATH 110 Elementary Statistics
- MATH 110H Elementary Statistics – Honors
- MATH 110S Integrated Statistics
- MATH 115 Statway 11
- MATH 120 Finite Mathematics
- MATH 130 College Algebra
- MATH 140 Calculus for Business
- MATH 150 Trigonometry
- MATH 160 Precalculus Mathematics
- MATH 180 Calculus and Analytic Geometry
- MATH 181 Calculus and Analytic Geometry
- MATH 280 Calculus and Analytic Geometry
- MATH 285 Linear Algebra
- and Differential Equations
- PSYC 10 Statistics for the Behavioral Sciences

Area 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 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

Section 9 105
### C-2: Humanities

- **ARAB 1**: Elementary Arabic
- **ARAB 2**: Continuing Elementary Arabic
- **CHIN 1**: Elementary Chinese
- **CHIN 2**: Continuing Elementary Chinese
- **CHIN 3**: Intermediate Chinese
- **CHIN 4**: Continuing Intermediate Chinese
- **ENGL 1B**: English – Introduction to Literary Types
- **ENGL 1BH**: English – Introduction 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 3H**: World History: Prehistoric to Early Modern
- **HIST 3**: World History: Prehistoric to Early Modern – Honors
- **HIST 4**: World History: Early Modern to the Present
- **HIST 4H**: World History: Early Modern to the Present – Honors
- **HIST 7**: History of the United States to 1877
- **HIST 7H**: History of the United States to 1877 – Honors
- **HIST 8**: History of the United States from 1865
- **HIST 8H**: History of the United States from 1865 – Honors
- **HIST 10**: History of Premodern Asia
- **HIST 11**: History of Modern Asia
- **HIST 16**: The Wild West – A History, 1800-1890
- **HIST 19**: History of Mexico
- **HIST 30**: History of the African American 1619-1877
- **HIST 31**: History of the African American
- **HIST 35**: History of Africa
- **HIST 36**: Women in American History
- **HIST 39**: California History
- **HIST 40**: History of the Mexican American
- **HUMA 1**: The Humanities
- **ITAL 1**: Elementary Italian
- **ITAL 2**: Continuing Elementary Italian
- **ITAL 3**: Intermediate Italian
- **ITAL 4**: Continuing Intermediate Italian
- **ITAL 60**: Italian Culture Through Cinema
- **JAPN 1**: Elementary Japanese
- **JAPN 2**: Continuing Elementary Japanese
- **JAPN 3**: Intermediate Japanese
- **JAPN 4**: Continuing Intermediate Japanese
- **JAPN 5**: Advanced Japanese
- **LATN 1**: Elementary Latin
- **LATN 2**: Continuing Elementary Latin
- **LIT 1**: Early American Literature
- **LIT 10**: Survey of Shakespeare
- **LIT 11A**: World Literature to 1650
- **LIT 11B**: World Literature from 1650
- **LIT 14**: Introduction to Modern Poetry
- **LIT 15**: Introduction to Cinema
- **LIT 20**: African American Literature
- **LIT 25**: Contemporary Mexican American Literature
- **LIT 26**: Introduction to Mythology
- **LIT 40**: Children’s Literature
- **LIT 46**: The Bible as Literature: Old Testament
- **LIT 47**: The Bible as Literature: New Testament
- **PHIL 5**: Introduction to Philosophy
- **PHIL 5H**: Introduction to Philosophy – Honors
- **PHIL 12**: Ethics
- **PHIL 12H**: Ethics – Honors
- **PHIL 15**: Major World Religions
- **PHIL 15H**: Major World Religions – Honors
- **PHIL 20A**: History of Western Philosophy
- **PHIL 20B**: History of Western Philosophy
- **PHIL 20AH**: History of Western Philosophy – Honors
- **POLI 5**: Political Theory I – Ancient to Modern
- **POLI 7**: Political Theory II – Early Modern to Contemporary

### Area D

**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**
- CHLD 1: Child, Family, School and Community
- SOC 1: Sociology
- SOC 1H: Sociology – Honors
- SOC 2: Contemporary Social Problems
- SOC 2H: Contemporary Social Problems – Honors
- SOC 4: Introduction to Gerontology
- SOC 5: Introduction to Criminology
- SOC 5H: Introduction to Criminology – Honors
- SOC 14: Marriage and the Family
- SOC 14H: Marriage and the Family – Honors
- *SOC 15: Child Development
- *SOC 20: Sociology of Ethnic Relations
- *SOC 20H: Sociology of Ethnic Relations – Honors

**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**
- AGAG 1: Food Production, Land Use and Politics – A Global Perspective
- BUSC 1A: Principles of Economics – Macroeconomics
- BUSC 1AH: Principles of Economics – Macroeconomics – Honors
<table>
<thead>
<tr>
<th>Area A</th>
<th>Lifelong Understanding &amp; Self Development (3 units)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Select at least one course.</td>
</tr>
<tr>
<td></td>
<td>AD 3  Chemical Dependency: Intervention, Treatment and Recovery</td>
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<tr>
<td></td>
<td>BIOL 5  Contemporary Health Issues</td>
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<tr>
<td></td>
<td>BIOL 13  Human Reproduction, Development and Aging</td>
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<td>BIOL 15  Human Sexuality</td>
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<td>BIOL 15H  Human Sexuality – Honors</td>
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<td></td>
<td>BIOL 24  Introduction to Public Health</td>
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<td></td>
<td>PSYC 15  Introduction to Child Psychology</td>
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<td></td>
<td>PSYC 19  Abnormal Psychology</td>
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<td></td>
<td>PSYC 25  The Psychology of Women</td>
</tr>
</tbody>
</table>

### Area E

**Interdisciplinary Social or Behavioral Science**

- **CHLD 10**  Child Growth and Lifespan Development  – Honors
- **CHLD 11**  Child and Adolescent Development
- **FASH 14**  Dress, Culture, and Identity
- **HIST 16**  The Wild West – A History, 1800-1890
- **SPCH 7**  Intercultural Communication
- **SPCH 7H**  Intercultural Communication – Honors
- **SPCH 26**  Interpersonal Communication
- **SPCH 26H**  Interpersonal Communication – Honors
- **SPCH 30**  Gateway to Communication Studies

**Political Science, Government, and Legal Institutions**

- **POLI 1**  Political Science
- **POLI 1H**  Political Science – Honors
- **POLI 2**  Comparative Politics
- **POLI 5**  Political Theory I – Ancient to Modern
- **POLI 7**  Political Theory I – Ancient to Modern
- **POLI 9**  Introduction to International Relations
- **POLI 10**  Environmental Politics
- **POLI 25**  Latino Politics in the United States
- **POLI 35**  African American Politics

**Psychology**

- **PSYC 1A**  Introduction to Psychology
- **PSYC 1AH**  Introduction to Psychology – Honors
- **PSYC 14**  Developmental Psychology

**Psychology for Effective Living**

- **PSYC 33**  Psychology for Effective Living
- **PSYC 15**  Introduction to Child Psychology
- **PSYC 19**  Abnormal Psychology
- **PSYC 25**  The Psychology of Women

### 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 2014 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

Upper Division Transfer Admission Requirements
The vast majority of transfer students come to UC at the junior level from California community colleges. To be considered for UC admission as a junior, you must fulfill both of the following:

- Complete 60 semester (90 quarter) units of transferable college credit with a GPA of at least 2.4 (2.8 for nonresidents). No more than 14 semester (21 quarter) units may be taken Pass/Not Pass.
- Complete the following course pattern requirements, and earn a grade of C or better in each course:
  - Two transferable college courses (3 semester or 4-5 quarter units each) in English composition
  - One transferable college course (3 semester or 4-5 quarter units) in mathematical concepts and quantitative reasoning
  - Four transferable college courses (3 semester or 4-5 quarter units each) chosen from at least two of the following subject areas:
    - Arts and Humanities
    - Social and Behavioral Sciences
    - Physical and Biological Sciences

Note: Meeting these minimum requirements does not guarantee admission to the campus or major of your choice. Many campuses and majors receive more applications than they have spaces available. To be competitive, you should work toward meeting the specific requirements for the campuses and majors that interest you. Consult university websites, counselors/advisors, and visit Mt. SAC Transfer Services for more information. Also, visit www.assist.org to find community college courses that fulfill major requirements.

Lower Division Transfer Admission Requirements
While all UC campuses welcome a large pool of junior-level transfers, most admit only a very limited number of lower-division transfers (students with fewer than 60 units). You may establish eligibility for lower division transfer:

- If you were eligible for admission to UC when you graduated from high school, meaning you satisfied the subject, examination and scholarship requirements, you are eligible for transfer if you have a 2.0 GPA in your transferable college coursework (2.8 GPA for nonresidents). Visit the UC admissions website for more information:
  - www.universityofcalifornia.edu/admissions.

- If you met the scholarship requirement in high school, but did not satisfy the 15-course subject requirement, you must take transferable college courses in the missing subjects, earn a grade of C or better in each required course and have an overall 2.0 GPA in all transferable coursework to be eligible to transfer (a 2.8 GPA is required for nonresidents).
Transferring to Four-Year Colleges and Universities

The requirements listed below are for the 2014-2015 academic year and are based upon information available at the time of catalog publication.

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).

English Communication
Select one course from each group:

- **Group A: English Composition**
  - ENGL 1A Freshman Composition
  - ENGL 1AH Freshman Composition – Honors

- **Group B: Critical Thinking – Composition**
  - ENGL 1C Critical Thinking and Writing
  - ENGL 1CH Critical Thinking and Writing – Honors
  - PHIL 9 Critical Analysis and Writing
  - PHIL 9H Critical Analysis and Writing – Honors

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

Mathematical Concepts and Quantitative Reasoning
Select one course from:

- MATH 110 Elementary Statistics
- MATH 110H Elementary Statistics – Honors
- MATH 120 Finite Mathematics
- MATH 130 College Algebra
- MATH 140 Calculus for Business
- MATH 150 Precalculus Mathematics
- MATH 180 Calculus and Analytic Geometry
- MATH 181 Calculus and Analytic Geometry
- MATH 280 Calculus and Analytic Geometry
- MATH 285 Linear Algebra and Differential Equations
- PSYC 10 Statistics for the Behavioral Sciences

Arts and Humanities
Select three courses minimum, at least one course from the Arts group and one course from the Humanities group:

- **Arts Courses:**
  - AHIS 1 Understanding the Visual Arts
  - 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
  - AHIS 4H History of Western Art: Prehistoric Through Gothic
  - AHIS 5 History of Western Art: Renaissance
  - AHIS 5H History of Western Art: Renaissance Through Modern
  - AHIS 6 History of Modern Art
  - AHIS 6H History of Modern Art – Honors
  - AHIS 8 History of Medieval Art and Architecture
  - AHIS 9 History of Asian Art and Architecture
  - 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 and Architecture
  - AHIS 14 Rome: The Ancient City
  - AHIS 15 Culture and Art of Pompeii
  - ARCH 31 World Architecture I
  - ARCH 32 World Architecture II
  - DN-T 20 History and Appreciation of Dance
  - MUS 11A Music Literature Survey
  - MUS 11B Music Literature Survey
  - MUS 12 History of Jazz
  - MUS 13 Introduction to Music Appreciation
  - MUS 13H Introduction to Music Appreciation – Honors
  - MUS 14A World Music
  - MUS 14B American Folk Music
  - MUS 15 Rock Music History and Appreciation
  - THTR 10 History of Theater Arts

- **Humanities Courses:**
  - CHIN 3 Intermediate Chinese
  - CHIN 4 Continuing Intermediate Chinese
  - ENGL 1B English – Introduction to Literary Types
  - ENGL 1BH English – Introduction to Literary Types – Honors
  - FRCH 3 Intermediate French
  - FRCH 4 Continuing Intermediate French
  - FRCH 5 Advanced French
  - FRCH 6 Continuing Advanced French
  - FRCH 60 French Culture Through Cinema
  - GERM 3 Intermediate German
  - HIST 1 History of the United States
  - HIST 3 World History: Prehistoric to Early Modern
  - HIST 3H World History: Prehistoric to Early Modern – Honors
  - HIST 4 World History: Early Modern to the Present
  - HIST 4H World History: Early Modern to the Present – Honors
  - HIST 7 History of the United States to 1877
  - HIST 7H History of the United States to 1877 – Honors
  - HIST 8 History of the United States from 1865
  - HIST 8H History of the United States from 1865 – Honors
  - HIST 10 History of Premodern Asia
  - HIST 11 History of Modern Asia
  - HIST 16 The Wild West – A History, 1800-1890
  - HIST 19 History of Mexico
  - HIST 30 History of the African American
  - HIST 31 History of the African American
  - HIST 35 History of Africa
  - HIST 36 Women in American History
  - HIST 39 California History
  - HIST 40 History of the Mexican American
  - HUMA 1 The Humanities

- **ITAL 3 Intermediate Italian**
- **ITAL 4 Continuing Intermediate Italian**
- **ITAL 60 Italian Culture Through Cinema**
- **JAPN 3 Intermediate Japanese**
- **JAPN 4 Continuing Intermediate Japanese**
- **JAPN 5 Advanced Japanese**
- **LIT 1 Early American Literature**
- **LIT 2 Modern American Literature**
- **LIT 3 Multicultural American Literature**
- **LIT 6A Survey of English Literature**
- **LIT 6B Survey of English Literature**
- **LIT 7 Survey of Shakespeare**
- **LIT 11A World Literature to 1650**
- **LIT 11B World Literature from 1650**
- **LIT 14 Introduction to Modern Poetry**
- **LIT 15 Introduction to Cinema**
- **LIT 20 African American Literature**
- **LIT 25 Contemporary Mexican American Literature**
- **LIT 36 Introduction to Mythology**
- **LIT 46 The Bible as Literature: Old Testament**
- **LIT 47 The Bible as Literature: New Testament**
- **PHIL 5 Introduction to Philosophy**
- **PHIL 5H Introduction to Philosophy – Honors**
- **PHIL 12 Ethics**
- **PHIL 12H Ethics – Honors**
- **PHIL 15 Major World Religions**
- **PHIL 15H Major World Religions – Honors**
- **PHIL 20A History of Western Philosophy**
- **PHIL 20AH History of Western Philosophy – Honors**
- **PHIL 20B History of Western Philosophy**
- **PHIL 20BH History of Western Philosophy – Honors**
- **POLI 5 Political Theory I – Ancient to Modern**
- **POLI 7 Political Theory II – Early Modern to Contemporary**
- **SIGN 104 American Sign Language 4**
- **SIGN 202 American Deaf Culture**
- **SPAN 3 Intermediate Spanish**
- **SPAN 4 Continuing Intermediate Spanish**
## Transferring to Four-Year Colleges and Universities

### Social and Behavioral Sciences
Select three courses total from a minimum of two different subject areas:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANTH 3</td>
<td>Archaeology</td>
</tr>
<tr>
<td>ANTH 5</td>
<td>Principles of Cultural Anthropology</td>
</tr>
<tr>
<td>ANTH 22</td>
<td>General Cultural Anthropology</td>
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<tr>
<td>BUSC 1A</td>
<td>Principles of Economics: Macroeconomics</td>
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<tr>
<td>BUSC 1AH</td>
<td>Principles of Economics: Microeconomics</td>
</tr>
<tr>
<td>BUSC 1B</td>
<td>Principles of Economics: Microeconomics</td>
</tr>
<tr>
<td>BUSC 18H</td>
<td>Principles of Economics: Microeconomics</td>
</tr>
<tr>
<td>GEOG 2</td>
<td>Human Geography</td>
</tr>
<tr>
<td>GEOG 2H</td>
<td>Human Geography – Honors</td>
</tr>
<tr>
<td>GEOG 8</td>
<td>The Urban World</td>
</tr>
<tr>
<td>GEOG 30</td>
<td>Geography of California</td>
</tr>
<tr>
<td>GEOG 30H</td>
<td>Geography of California – Honors</td>
</tr>
</tbody>
</table>

* HIST 16 | The Wild West – A History, 1800-1890

* HIST 44 | History of Native Americans

POLI 1  | Political Science                          |

POLI 1H | Political Science – Honors

* POLI 5 | Political Theory I – Ancient to Modern

* POLI 7 | Political Theory II – Early Modern to Contemporary

POLI 9  | Introduction to International Relations

POLI 10 | Environmental Politics

POLI 25 | Latino Politics in the United States

POLI 35 | African American Politics

PSYC 1A | Introduction to Psychology

PSYC 1AH | Introduction to Psychology – Honors

PSYC 14 | Developmental Psychology

PSYC 15 | Introduction to Child Psychology

PSYC 19 | Abnormal Psychology

PSYC 25 | The Psychology of Women

SOC 1 | Sociology

SOC 1H | Sociology – Honors

SOC 2 | Contemporary Social Problems

SOC 2H | Contemporary Social Problems – Honors

SOC 4 | Introduction to Gerontology

SOC 5 | Introduction to Criminology

SOC 5H | Introduction to Criminology – Honors

SOC 20 | Sociology of Ethnic Relations

SOC 20H | Sociology of Ethnic Relations – Honors

SPCH 7 | Intercultural Communication

SPCH 7H | Intercultural Communication – Honors

SPCH 26 | Interpersonal Communication

SPCH 26H | Interpersonal Communication – Honors

SPCH 30 | Gateway to Communication Studies

### Physical and Biological Sciences

#### Physical Science:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASTR 5</td>
<td>Introduction to Astronomy</td>
</tr>
<tr>
<td>ASTR 5H</td>
<td>Introduction to Astronomy – Honors</td>
</tr>
<tr>
<td>ASTR 5L</td>
<td>Astronomical Observing Laboratory</td>
</tr>
<tr>
<td>ASTR 7</td>
<td>Geology of the Solar System</td>
</tr>
<tr>
<td>ASTR 8</td>
<td>Introduction to Stars, Galaxies, and the Universe</td>
</tr>
</tbody>
</table>

**CHEM 10** | Chemistry for Allied Health Majors

**CHEM 20** | Introductory Organic and Biochemistry

**CHEM 40** | Introduction to General Chemistry

**CHEM 50** | General Chemistry I

**CHEM 50H** | General Chemistry I – Honors

**CHEM 51** | General Chemistry II

**CHEM 1** | Elements of Physical Geography

**CHEM 51L** | Elements of Physical Geography – Honors

**GEOG 1** | Physical Geography Laboratory

**GEOG 1H** | Physical Geography Laboratory – Honors

**GEOG 1L** | Physical Geography Laboratory

**GEOG 1TLH** | Physical Geography Laboratory – Honors

**GEOG 6** | Physical Geology

**GEOG 8** | Earth Science

**GEOG 8H** | Earth Science – Honors

**GEOG 9** | Environmental Geology

**METO 3** | Elements of Physical Geography

**METO 3L** | Elements of Physical Geography – Honors

**METO 3LH** | Elements of Physical Geography – Honors

**OCEA 10** | Introduction to Oceanography

**OCEA 10H** | Introduction to Oceanography – Honors

**OCEA 10L** | Introduction to Oceanography Laboratory

**PHYS 3** | General Physics

**PHYS 3A** | General Physics

**PHYS 28B** | General Physics

**PHYS 4A** | Engineering Physics

**PHYS 4B** | Engineering Physics

**PHYS 4C** | Engineering Physics

### Biological Sciences:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANAT 10A</td>
<td>Introductory Human Anatomy</td>
</tr>
<tr>
<td>ANAT 10B</td>
<td>Introductory Human Physiology</td>
</tr>
<tr>
<td>ANAT 35</td>
<td>Human Anatomy</td>
</tr>
<tr>
<td>ANAT 36</td>
<td>Human Physiology</td>
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</tbody>
</table>

**ANTH 1** | Biological Anthropology

**ANTH 1H** | Biological Anthropology – Honors

**ANTH 1L** | Biological Anthropology Laboratory

**BIOL 1** | General Biology                           |

**BIOL 2** | Plant and Animal Biology

**BIOL 3** | Ecology and Field Biology

**BIOL 4** | Biology for Majors

**BIOL 4H** | Biology for Majors – Honors

**BIOL 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

**BIOL 34** | Fundamentals of Genetics

**BIOL 34L** | Fundamentals of Genetics Laboratory

**MICR 1** | Microbiology

**MICR 22** | Microbiology

**PSYC 22** | Biological Psychology

### UC REQUIREMENT ONLY

#### Language other than English:

The minimum proficiency required is met by completing one of the courses listed below or by completion of two years of high school study in the same language.

**ARAB 1** | Elementary Arabic

**JAPN 1** | Elementary Japanese

**CHIN 1** | Elementary Chinese

**LATN 1** | Elementary Latin

**FRCH 1** | Elementary French

**SIGN 101** | American Sign Language 1

**GERM 1** | Elementary German

**SPAN 1** | Elementary Spanish

**ITAL 1** | Elementary Italian

**SPAN 11** | Spanish for the Spanish Speaking

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

**Note:** 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, or

**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:**

HIST 1 | History of the United States

HIST 36 | Women in American History

HIST 7 | History of the United States to 1877

HIST 40 | History of the Mexican American

HIST 7H | History of the United States to 1877

**American Institutions:**

POLI 1 | Political Science

POLI 8 | History of the United States from 1865

POLI 1H | Political Science – Honors

HIST 25 | Latino Politics in the United States

HIST 25L | Latino Politics in the United States – Honors

**POLI 35** | African American Politics

**HIST 30** | History of the African American 1619-1877

**HIST 31** | History of the African American

**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 IGEC certification. For IGEC 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.
### ADVANCED PLACEMENT EXAMINATIONS IN CSU/UC GENERAL EDUCATION – BREADTH CERTIFICATION

Advanced Placement examinations may be incorporated into certification of completion of CSU/UC General Education—Breadth requirements by any participating institution. Students must have scored 3, 4, or 5 on an Advanced Placement examination listed on the table to receive the credit indicated. All CSU/UC campuses will accept the minimum units shown on the table toward fulfillment of the designated General Education—Breadth area if the examination is included in a full or subject-area certification; individual CSU/UC campuses may choose to accept more units than those specified towards completion of General Education—Breadth requirements. The CSU/UC 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 for specific AP Subjects.

### CSU/UC CROSS ENROLLMENT

California resident students at Mt. San Antonio College may enroll in one undergraduate course per term at a participating CSU or UC campus without formal admission and without payment of state university fees/tuition. To be eligible for cross-enrollment, students must: have completed at least one term at Mt. SAC; have at least a 2.0 GPA in all coursework completed; have satisfied prerequisite(s) of the class in which they plan to enroll at CSU/UC; and be enrolled in at least six units at Mt. SAC, and have paid their registration fees. To apply for CSU/UC Cross Enrollment, students must complete the CSU/UC Cross Enrollment application. The form is available in the Transfer Center and online at [http://transfer.mtsac.edu](http://transfer.mtsac.edu).

### CALIFORNIA INDEPENDENT COLLEGES AND UNIVERSITIES

California's fully-accredited independent colleges and universities provide many options at the undergraduate, graduate, and professional levels for students planning to continue their education beyond the community college. Admission requirements vary and are listed in the catalogs of the various universities and colleges.

For more information about California Independent Colleges and Universities, visit college/university websites, [www.aiccu.edu](http://www.aiccu.edu), or Mt. SAC Transfer Services.

### OUT-OF-STATE COLLEGES AND UNIVERSITIES

Students may also consider transferring to colleges and universities in other states. Admission requirements vary by school. For more information, visit college/university websites or Mt. SAC Transfer Services.

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

<table>
<thead>
<tr>
<th>Exam</th>
<th>CSU GE Breadth Units</th>
<th>CSU Units</th>
<th>IGETC Units</th>
<th>UC Units</th>
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</thead>
<tbody>
<tr>
<td>Art History</td>
<td>3 semester (Area C1 or C2)</td>
<td>6 semester</td>
<td>3 semester (Area 3A or 3B)</td>
<td>8 quarter / 5.3 semester</td>
</tr>
<tr>
<td>Art (Studio)</td>
<td>N/A</td>
<td>3 semester</td>
<td>N/A</td>
<td>8 quarter / 5.3 semester</td>
</tr>
<tr>
<td>Biology</td>
<td>4 semester (Area B2 and B3)</td>
<td>6 semester</td>
<td>4 semester (Area 5B with lab)</td>
<td>8 quarter / 5.3 semester</td>
</tr>
<tr>
<td>Calculus AB</td>
<td>3 semester (Area B4)</td>
<td>3 semester</td>
<td>3 semester (Area 2A)</td>
<td>4 quarter / 2.7 semester</td>
</tr>
<tr>
<td>Calculus BC</td>
<td>3 semester (Area B4)</td>
<td>6 semester</td>
<td>3 semester (Area 2A)</td>
<td>8 quarter / 5.3 semester</td>
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<tr>
<td>Chemistry</td>
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<td>6 semester</td>
<td>4 semester (Area 5A with lab)</td>
<td>8 quarter / 5.3 semester</td>
</tr>
<tr>
<td>Chinese Language &amp; Culture</td>
<td>3 semester (Area C2)</td>
<td>6 semester</td>
<td>3 semester (Area 3B and 6A)</td>
<td>8 quarter / 5.3 semester</td>
</tr>
<tr>
<td>Computer Science A</td>
<td>N/A</td>
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<td>N/A</td>
<td>2 quarter / 1.3 semester</td>
</tr>
<tr>
<td>Computer Science AB</td>
<td>N/A</td>
<td>6 semester</td>
<td>N/A</td>
<td>4 quarter / 2.7 semester</td>
</tr>
<tr>
<td>Economics — Macroeconomics</td>
<td>3 semester (Area D2)</td>
<td>3 semester</td>
<td>3 semester (Area 4B)</td>
<td>4 quarter / 2.7 semester</td>
</tr>
<tr>
<td>Economics — Microeconomics</td>
<td>3 semester (Area D2)</td>
<td>3 semester</td>
<td>3 semester (Area 4B)</td>
<td>4 quarter / 2.7 semester</td>
</tr>
<tr>
<td>English &amp; Language Composition</td>
<td>3 semester (Area A2)</td>
<td>6 semester</td>
<td>3 semester (Area 1A)</td>
<td>8 quarter / 5.3 semester</td>
</tr>
<tr>
<td>English — Literature &amp; Composition</td>
<td>6 semester (Area A2 and C2)</td>
<td>6 semester</td>
<td>3 semester (Area 1A or 3B)</td>
<td>8 quarter / 5.3 semester</td>
</tr>
<tr>
<td>Environmental Science</td>
<td>4 semester (Area B1 and B3)</td>
<td>4 semester</td>
<td>3 semester (Area 5A with lab)</td>
<td>4 quarter / 2.7 semester</td>
</tr>
<tr>
<td>French Language</td>
<td>3 semester (Area C2)</td>
<td>6 semester</td>
<td>3 semester (Area 3B and 6A)</td>
<td>8 quarter / 5.3 semester</td>
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<tr>
<td>French Literature</td>
<td>3 semester (Area C2)</td>
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<td>3 semester (Area 3B and 6A)</td>
<td>8 quarter / 5.3 semester</td>
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<tr>
<td>German Language</td>
<td>3 semester (Area C2)</td>
<td>6 semester</td>
<td>3 semester (Area 3B and 6A)</td>
<td>8 quarter / 5.3 semester</td>
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<tr>
<td>Government &amp; Politics — Comparative</td>
<td>3 semester (Area DB)</td>
<td>3 semester</td>
<td>3 semester (Area 4H)</td>
<td>4 quarter / 2.7 semester</td>
</tr>
<tr>
<td>Government &amp; Politics — U.S.</td>
<td>3 semester (Area DB and US 2)</td>
<td>3 semester</td>
<td>3 semester (Area 4H)</td>
<td>4 quarter / 2.7 semester</td>
</tr>
<tr>
<td>History — European</td>
<td>3 semester (Area C2 or D6)</td>
<td>6 semester</td>
<td>3 semester (Area 3B or 4F)</td>
<td>8 quarter / 5.3 semester</td>
</tr>
<tr>
<td>History — U.S.</td>
<td>3 semester (Area C2 or D6 and US 1)</td>
<td>6 semester</td>
<td>3 semester (Area 3B or 4F)</td>
<td>8 quarter / 5.3 semester</td>
</tr>
<tr>
<td>History — World</td>
<td>3 semester (Area C2 or D6)</td>
<td>6 semester</td>
<td>3 semester (Area 3B or 4F)</td>
<td>8 quarter / 5.3 semester</td>
</tr>
<tr>
<td>Human Geography</td>
<td>3 semester (Area D5)</td>
<td>3 semester</td>
<td>3 semester (Area 4E)</td>
<td>4 quarter / 2.7 semester</td>
</tr>
<tr>
<td>Italian Language &amp; Culture</td>
<td>3 semester (Area C2)</td>
<td>6 semester</td>
<td>3 semester (Area 3B and 6A)</td>
<td>8 quarter / 5.3 semester</td>
</tr>
<tr>
<td>Japanese Language &amp; Culture</td>
<td>3 semester (Area C2)</td>
<td>6 semester</td>
<td>3 semester (Area 3B and 6A)</td>
<td>8 quarter / 5.3 semester</td>
</tr>
<tr>
<td>Latin — Vergil</td>
<td>3 semester (Area C2)</td>
<td>6 semester</td>
<td>3 semester (Area 3B and 6A)</td>
<td>4 quarter / 2.7 semester</td>
</tr>
<tr>
<td>Latin — Literature</td>
<td>3 semester (Area C2)</td>
<td>6 semester</td>
<td>3 semester (Area 3B and 6A)</td>
<td>4 quarter / 2.7 semester</td>
</tr>
<tr>
<td>Music Theory</td>
<td>3 semester (Area C1)</td>
<td>6 semester</td>
<td>N/A</td>
<td>3 quarter / 1.6 semester</td>
</tr>
<tr>
<td>Music Theory</td>
<td>4 semester (Area B1 and B3)</td>
<td>6 semester</td>
<td>4 semester (Area 5A with lab)</td>
<td>8 quarter / 5.3 semester</td>
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<tr>
<td>Physics B</td>
<td>4 semester (Area B1 and B3)</td>
<td>6 semester</td>
<td>4 semester (Area 5A with lab)</td>
<td>8 quarter / 5.3 semester</td>
</tr>
<tr>
<td>Physics C — Mechanics</td>
<td>4 semester (Area B1 and B3)</td>
<td>4 semester</td>
<td>3 semester (Area 5A with lab)</td>
<td>4 quarter / 2.7 semester</td>
</tr>
<tr>
<td>Physics C — Magnetism</td>
<td>4 semester (Area B1 and B3)</td>
<td>4 semester</td>
<td>3 semester (Area 5A with lab)</td>
<td>4 quarter / 2.7 semester</td>
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<tr>
<td>Physics I</td>
<td>4 semester (Area B1 and B3)</td>
<td>4 semester</td>
<td>N/A</td>
<td>8 quarter / 5.3 semester</td>
</tr>
<tr>
<td>Physics II</td>
<td>4 semester (Area B1 and B3)</td>
<td>4 semester</td>
<td>NA</td>
<td>8 quarter / 5.3 semester</td>
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<tr>
<td>Spanish Language</td>
<td>3 semester (Area C2)</td>
<td>6 semester</td>
<td>3 semester (Area 3B and 6A)</td>
<td>8 quarter / 5.3 semester</td>
</tr>
<tr>
<td>Spanish Literature</td>
<td>3 semester (Area B4)</td>
<td>6 semester</td>
<td>3 semester (Area 3B and 6A)</td>
<td>8 quarter / 5.3 semester</td>
</tr>
<tr>
<td>Statistics</td>
<td>3 semester (Area B4)</td>
<td>6 semester</td>
<td>3 semester (Area 2)</td>
<td>4 quarter / 2.7 semester</td>
</tr>
</tbody>
</table>

1) If a student passes more than one AP exam in calculus or computer science, only one examination may be applied to the baccalaureate.
2) Students who pass AP Chemistry earn 6 units of credit. Tests prior to Fall 2009 may apply 4 units to area B1+B3 of GE Breadth. Tests after Fall of 2009 may apply 6 units to area B1+B3.
3) Students who pass AP Environmental Science earn 4 units of credit. Tests prior to Fall 2009 may apply to either B1+B3 or B2+B3 of GE Breadth. Fall of 09 or later, those credits may only apply to B1+B3.
4) Students who pass AP French Language, German Language, Spanish Language, and Spanish Literature earn 6 units of credit. Tests prior to Fall 2009 may apply 6 units to area C2 of GE Breadth. Tests after Fall 2009 may apply 3 units to area C2.
5) Students seeking certification in GE Breadth prior to transfer must have passed the test before Fall 2009.
6) Students seeking certification in GE Breadth prior to transfer must have passed the test before Fall 2010.
7) If a student passes more than one AP exam in physics, only six units of credit may be applied to the baccalaureate, and only four units of credit may be applied to a certification in GE Breadth. Students who pass AP Physics B earn 6 units of credit. Tests prior to Fall 2009 may apply 4 units to area B1+B3 of GE Breadth. Tests after Fall of 2009 may apply 4 units to area C2 of GE Breadth. Tests after Fall 2009 may apply 3 units to area C2.
8) At all UC Campuses, a maximum of 8 quarter units are allowed in each of the following areas: Art (Studio), English, Mathematics, Music and Physics. A maximum of 4 quarter units are allowed in Computer Science.
9) Students who take the Calculus BC examination and earn a subscore of 3 or higher on the Calculus AB portion will receive UC credit for the Calculus AB examination, even if they do not receive a score of 3 or higher on the BC examination.
10) The UC will grant credit for the full Music Theory exam. Students who earn only a subscore will not receive exam credit.
SECTION TEN

Course Descriptions

Committed to Student Success
DEFINITIONS OF TERMS

Course Identification Numbering System (C-ID)
The Course Identification Numbering System (C-ID) is a statewide numbering system independent from the course numbers assigned by local California community colleges. A C-ID number next to a course signals that participating California colleges and universities have determined that courses offered by other California community colleges are comparable in content and scope to courses offered on their own campuses, regardless of their unique titles or local course number. Thus, if a schedule of classes or catalog lists a course bearing a C-ID number, for example ENGL 100, students at that college can be assured that it will be accepted in lieu of a course bearing the C-ID ENGL 100 designation at another community college. In other words, the C-ID designation can be used to identify comparable courses at different community colleges. However, students should always go to www.assist.org to confirm how each college’s course will be accepted at a particular four-year college or university for transfer credit.

The C-ID numbering system is useful for students attending more than one community college and is applied to many of the transferable courses students need as preparation for transfer. Because these course requirements may change and because courses may be modified and qualified for or deleted from the C-ID database, students should always check with a counselor to determine how C-ID designated courses fit into their educational plans for transfer.

Students may consult the ASSIST database at www.assist.org for specific information on C-ID course designations. Counselors are also available in the Counseling Center to help students interpret this information.

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.

UC Transfer
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 Credit Limitation
UC limits credit for some courses. Students contemplating transfer to UC should consult with a counselor or advisor and review www.assist.org for course credit limitations and changes.

UC Credit for Kinesiology Activity Courses
A maximum of four semester units of UC credit will be awarded for Kinesiology Activity courses. Courses of a vocational nature will not be awarded UC credit.

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 is a course which is advised, but not required, to be taken either before or in conjunction with enrollment in a course.

Not Degree Applicable
Courses designated “Not Degree Applicable” are college level classes which are neither a part of an associate degree or certificate program nor transferable to four-year colleges and universities.

Degree Applicable
Courses designated “Degree Applicable” are college level classes which are a part of an associate degree or certificate program.
<table>
<thead>
<tr>
<th>COURSE PREFIX LISTING</th>
<th>COURSE DESCRIPTIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>AD</td>
<td>Alcohol Drug Counseling</td>
</tr>
<tr>
<td>ADJU</td>
<td>Administration of Justice: Law Enforcement</td>
</tr>
<tr>
<td>AERO</td>
<td>Aeronautics</td>
</tr>
<tr>
<td>AGAG</td>
<td>Agriculture: General Subjects</td>
</tr>
<tr>
<td>AGAN</td>
<td>Agriculture: Animal Science — General</td>
</tr>
<tr>
<td>AGHE</td>
<td>Agriculture: Animal Health Technology</td>
</tr>
<tr>
<td>AGLI</td>
<td>Agriculture: Livestock Production</td>
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<tr>
<td>AGOR</td>
<td>Agriculture: Ornamental Horticulture</td>
</tr>
<tr>
<td>AGPE</td>
<td>Agriculture: Pest Science</td>
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<td>AIRT</td>
<td>Air Traffic Control</td>
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<td>AMLA</td>
<td>American Language</td>
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<td>ANAT</td>
<td>Anatomy &amp; Physiology</td>
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<td>Anthropology</td>
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<td>ARAB</td>
<td>Arabic</td>
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<td>ARCH</td>
<td>Architectural Technology</td>
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<tr>
<td>ANIM</td>
<td>Art: Animation</td>
</tr>
<tr>
<td>ARTB</td>
<td>Art: Basic Studio Arts</td>
</tr>
<tr>
<td>ARTC</td>
<td>Art: Graphic Design and Illustration</td>
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<tr>
<td>ARTG</td>
<td>Art: Gallery &amp; Professional Practices</td>
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<tr>
<td>ARTZ</td>
<td>Art: Special Studio Arts</td>
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<tr>
<td>ARTS</td>
<td>Art: Three-Dimensional Studio Arts</td>
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<tr>
<td>ARTD</td>
<td>Art: Two-Dimensional Studio Arts</td>
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<td>AZHS</td>
<td>Art History</td>
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<td>ASTR</td>
<td>Astronomy</td>
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<td>Biology</td>
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<td>BTNY</td>
<td>Botany</td>
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<td>BUSA</td>
<td>Business: Accounting</td>
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<td>BUSC</td>
<td>Business: Economics</td>
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<td>Business: Law</td>
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<td>BUSM</td>
<td>Business: Management</td>
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<tr>
<td>BUSO</td>
<td>Business: Business Communications</td>
</tr>
<tr>
<td>BUSR</td>
<td>Business: Real Estate</td>
</tr>
<tr>
<td>BUSS</td>
<td>Business: Sales, Merchandising &amp; Marketing</td>
</tr>
<tr>
<td>CHEM</td>
<td>Chemistry</td>
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<tr>
<td>CHIN</td>
<td>Chinese</td>
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<tr>
<td>CHLD</td>
<td>Child Development</td>
</tr>
<tr>
<td>GRAP</td>
<td>Computer Graphics</td>
</tr>
<tr>
<td>CISB</td>
<td>Computer Information Systems: Beginning</td>
</tr>
<tr>
<td>CISO</td>
<td>Computer Information Systems: Security</td>
</tr>
<tr>
<td>CISS</td>
<td>Computer Information Systems: Security</td>
</tr>
<tr>
<td>CISSW</td>
<td>Computer Information Systems: Web Applications</td>
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<tr>
<td>CISSX</td>
<td>Computer Information Systems: Auxiliary</td>
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<tr>
<td>CNET</td>
<td>Computer and Networking Technology</td>
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<td>CORS</td>
<td>Correctional Sciences</td>
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<td>COUN</td>
<td>Counseling</td>
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<td>CSCI</td>
<td>Computer Science</td>
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<tr>
<td>DN-T</td>
<td>Dance: Theory</td>
</tr>
<tr>
<td>DNCE</td>
<td>Dance: Activity</td>
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<tr>
<td>DPS</td>
<td>Disabled Students</td>
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<tr>
<td>EDUC</td>
<td>Education</td>
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<td>EDT</td>
<td>Engineering Design Technology</td>
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<td>ELEC</td>
<td>Electronics</td>
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<td>Emergency Medical Service</td>
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<td>Emergency Medical Technician</td>
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<td>ENGL</td>
<td>English: Composition</td>
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<td>ENGR</td>
<td>Engineering</td>
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<td>Electronics Systems Technology</td>
</tr>
<tr>
<td>FCS</td>
<td>Family &amp; Consumer Sciences</td>
</tr>
<tr>
<td>FASH</td>
<td>Fashion Merchandising &amp; Design</td>
</tr>
<tr>
<td>FIRE</td>
<td>Fire Technology</td>
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<tr>
<td>FRCH</td>
<td>French</td>
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</table>
administration of justice: law enforcement

- **ADJU 1 — The Administration of Justice System** 3 Units
  (C-ID AJ 110)  Degree Applicable, CSU, UC
  54 hours lecture
  History and philosophy of the justice system, subsystems, roles, relationships and theories of crime causation and correction.

- **ADJU 2 — Principles and Procedures of the Justice System** 3 Units
  (C-ID AJ 122)  Degree Applicable, CSU
  54 hours lecture
  Due process in criminal proceedings from pre-arrest through trial and appeal using statutory law and legal precedent.

- **ADJU 3 — Concepts of Criminal Law** 3 Units
  (C-ID AJ 120)  Degree Applicable, CSU, UC
  54 hours lecture
  Classification of crime, elements of crimes, common and statutory law, and evidence as observed through the study of case law decisions by state and federal courts.

- **ADJU 4 — Legal Aspects of Evidence** 3 Units
  (C-ID AJ 124)  Degree Applicable, CSU
  54 hours lecture
  Criminal evidence, including admissibility, witness competency, privileged communication, hearsay, and collection and preservation of evidence.

- **ADJU 5 — Community Relations** 3 Units
  (C-ID AJ 160)  Degree Applicable, CSU, UC
  54 hours lecture
  Prerequisite: Eligibility for ENGL 68
  Examines the complex, dynamic relationship between communities and the justice system in addressing crime and conflict with an emphasis on the challenges and prospects of administering justice within a diverse multicultural population.

- **ADJU 6 — Concepts of Enforcement Services** 3 Units
  Degree Applicable
  54 hours lecture
  Responsibilities, techniques and methods of police patrol with emphasis on the knowledge required in handling common police occurrences.

- **ADJU 13 — Concepts of Traffic Services** 3 Units
  Degree Applicable
  54 hours lecture
  Traffic management, collision reconstruction, collision factors including law violations and human factors, collision evidence, traffic enforcement techniques and traffic management specialization. Emphasis is placed on service to the motoring public.

- **ADJU 20 — Principles of Investigation** 3 Units
  (C-ID AJ 140)  Degree Applicable, CSU
  54 hours lecture
  Prerequisite: Eligibility for English 68
  Investigation; 4th Amendment issues including crime scene search and recording; collection and preservation of physical evidence; modus operandi; suspect profiling scientific aids; sources of information; use of informants; interviews and interrogation; follow up and case preparation

- **ADJU 38 — Narcotics Investigation** 3 Units
  Degree Applicable
  54 hours lecture
  Prerequisite: Eligibility for ENGL 68
  Investigation and arrest techniques for drug enforcement. Drug effects, use of informants, constitutional issues, and handling of evidence.

- **ADJU 50 — Introduction to Forensics for Criminal Justice** 3 Units
  (C-ID AJ 150)  Degree Applicable, CSU
  54 hours lecture
  The science of collecting, preserving and analyzing physical evidence. Focuses on the reliability of physical evidence for the purpose of establishing facts and proof.

- **ADJU 59 — Gangs and Corrections** 3 Units
  Degree Applicable, CSU
  54 hours lecture
  Advisory: Eligibility for ENGL 68, and ADJU 1
  Contemporary street and prison gang issues, including historical and current perspectives, gang dynamics, identification of characteristics, and cultural differences of gang philosophy. Includes law enforcement and corrections role in intervention and suppression.

- **ADJU 68 — Administration of Justice Report Writing** 3 Units
  Degree Applicable
  54 hours lecture
  Prerequisite: Eligibility for ENGL 1A
  Techniques for proper documentation of crime reports and related law enforcement records. Use of simulations and role-playing.

- **ADJU 74 — Vice Control** 3 Units
  Degree Applicable
  54 hours lecture
  Prerequisite: Eligibility for ENGL 1A
  Code and case law dealing with vice detection and suppression, apprehension and prosecution of violators, gambling, prostitution, and sex crimes.

- **ADJU 90 — Work Experience in Administration of Justice** 1 to 4 Units
  Not Degree Applicable
  (May be taken for Pass/No Pass only)
  75 to 300 hours lab
  Prerequisite: Prior approval by ADJU department faculty and compliance with Work Experience regulations as designated in the College Catalog
  Provides actual on-the-job experience at an approved work site which is related to classroom instruction in Administration of Justice. A minimum of 75 paid clock hours or 60 non-paid clock hours per semester is required for each one unit of credit. If this is a volunteer program on or off campus, a minimum number hours per month will be required as part of the 60 hour total. Students who repeat this course will have an opportunity to create a performance contract with a supervisor and the end of the course which will detail specific learning objectives to achieve during the next phase.

- **AERO 100 — Primary Pilot Ground School** 4 Units
  Degree Applicable, CSU
  72 hours lecture
  Formerly AERO 23.
  Aerodynamics, aircraft performance, Federal Aviation Regulations, aviation weather factors, and cross-country navigation procedures; provides introductory material on radio navigation, aeromedical factors, and radio communications procedures. Meets the preparation requirements for the FAA Private Pilot knowledge examination and FAA Air Traffic Control Basics.

- **AERO 102 — Aviation Weather** 3 Units
  Degree Applicable, CSU
  54 hours lecture
  Formerly AERO 26.
  Weather elements, atmosphere, weather mechanics, weather disturbances, weather analysis and forecasts. Evaluation of aviation weather reports and forecasts.

- **AERO 104 — Federal Aviation Regulations** 2 Units
  Degree Applicable, CSU
  36 hours lecture
  Formerly AERO 29.
  Federal Aviation Regulations (FAR), pertaining to pilot certification, aircraft maintenance, general operating rules; air traffic control practices and procedures; reporting of aircraft accidents.
AERO 150 — Commercial Pilot Ground School  3 Units
Degree Applicable, CSU

54 hours lecture
Advisory: AERO 23 or AERO 100
Formerly AERO 25.
Federal Aviation Administration (FAA) Commercial Pilot certification requirements, including aerodynamics, commercial pilot maneuvers, complex aircraft operations, multi-engine aircraft operations, aircraft weight and balance, aircraft performance charts, and radio navigation using advanced instrumentation. Prepares students for completion of the FAA Commercial Pilot Computerized Knowledge Examination.

AERO 152 — Air Transportation  3 Units
Degree Applicable, CSU

54 hours lecture
Formerly TRAN 17.
Survey course of the air transportation industry. Topics include an introduction to air transportation, structure and economics of the airlines, general aviation operations, and aviation career planning.

AERO 200 — Aviation Safety and Human Factors  3 Units
Degree Applicable, CSU

54 hours lecture
Advisory: AERO 23 or AERO 100
Formerly AERO 27.
Evaluation and analysis of factors leading to aircraft accidents as it relates to the environment of the pilot and air traffic controller.

AERO 202 — Aircraft and Engines  3 Units
Degree Applicable, CSU

54 hours lecture
Advisory: AERO 100 or AERO 23
Formerly AERO 28.
Aircraft design, subsystems, repair and maintenance. Principles of internal combustion engines, fuel system, engine construction and design, lubrication and cooling methods, ignition system, basic troubleshooting. Turbine engine basic design and operational characteristics.

AERO 206L — Flight Simulator Laboratory  .5 Unit
Degree Applicable

May be taken for Pass/No Pass only
27 hours lab
Advisory: AERO 25 or AERO 150
Formerly AERO 41.
Flight simulator training in the iGATE Computer-based Aviation Training (PC-ATD) simulator in preparation for the instrument rating. Full and partial panel airwork, holding patterns, VHF Omni-directional Range (VOR) and Automatic Directional Finder (ADF) orientation, and instrument approach procedures.

AERO 250 — Navigation  3 Units
Degree Applicable, CSU

54 hours lecture
Advisory: AERO 23 or AERO 100
Formerly AERO 24.
Dead reckoning navigation procedures. Aeronautical computers and their application in cross-country flying. Use of radio navigation aids, flight planning, flight directors, global positioning system, and electronic flight instrumentation systems.

AERO 252 — Instrument Ground School  3 Units
Degree Applicable, CSU

54 hours lecture
Advisory: (AERO 23 or AERO 100) and (AERO 26 or AERO 102)
Formerly AERO 30.
Instrument Flight Rules (IFR), Air Traffic Control communications and procedures, air navigation radio aids, instrument landing systems, flight instruments, aircraft performance, aeronautical publications, instrument approach procedures, IFR cross-country navigation, and instrument weather. Meets the preparation requirements for the FAA Instrument Pilot computerized knowledge exam.

AERO 256 — Flight Instructor Ground School  3 Units
Degree Applicable, CSU

54 hours lecture
Advisory: (AERO 25 or AERO 150) and (AERO 30 or AERO 252)
Formerly AERO 58.
Basic teaching principles, and application of those principles in teaching student pilots. Analysis of flight maneuvers and instruments. Prepares students for FAA knowledge tests for Flight Instructors.

AERO 258 — Multi-Engine Turbine Aircraft Operations  3 Units
Degree Applicable, CSU

54 hours lecture
Advisory: (AERO 23 or AERO 100) and (AERO 30 or AERO 252)
Formerly AERO 45A.
Design features and operational characteristics of a multi-engine turbine aircraft utilized in regional airline operations and corporate aviation, with emphasis on aircraft and engine systems. Off-campus trips maybe required.

AGHE 60 — Medical Nursing and Animal Care  4 Units
Degree Applicable, CSU

54 hours lecture
54 hours lab
Prerequisite: AGHE 86 and AGHE 64 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 both infectious and zoonotic, their causes and effects, and immunology of animals. Formal admittance to the Registered Veterinary Technology program required.

AGHE 61 — Animal Surgical Nursing  4 Units
Degree Applicable, CSU

54 hours lecture
54 hours lab
Prerequisite: AGHE 60 AND AGHE 64
Animal surgical preparation, surgical assistance and suture techniques and patterns, post-operative care, administer and monitor anesthesia, anesthesia induction with anesthesia machines and instrumentation, dentistry and extractions, CPR, sterilization and the maintenance of a sterile environment.

AGHE 62A — Clinical Pathology  4 Units
Degree Applicable, CSU

54 hours lecture
54 hours lab
Prerequisite: AGHE 86
Hematology, clinical chemistries, internal parasites, immunology, serology, and vaginal cytology of domestic animals.

AGHE 62B — Clinical Pathology  4 Units
Degree Applicable, CSU

54 hours lecture
54 hours lab
Prerequisite: AGHE 86
Bacteriology, clinical chemistry, urinalysis, external parasites and cytology of domestic animals.

AGHE 64 — Veterinary Pharmacology  3 Units
Degree Applicable, CSU

54 hours lecture
Prerequisite: AGHE 86, MATH 71, MATH 71B, or MATH 71X
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 form rates, pharmacological mathematics and the metric system, side effects and drug interactions.
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<tr>
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<th>Course Title</th>
<th>Units</th>
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<tbody>
<tr>
<td>AGHE 65</td>
<td>Veterinary Radiography</td>
<td>2</td>
<td>CSU</td>
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<tr>
<td>AGHE 79</td>
<td>Laboratory Animal Medicine and Care</td>
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<td>CSU</td>
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<tr>
<td>AGHE 83A</td>
<td>Work Experience in Animal Health</td>
<td>1 to 2</td>
<td>CSU</td>
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<tr>
<td>AGHE 84B</td>
<td>Applied Animal Health Procedures</td>
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<td>AGHE 85</td>
<td>Seminar in Registered Veterinary Technology</td>
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<tr>
<td>AGAG 1</td>
<td>Animal Science</td>
<td>3</td>
<td>CSU, UC</td>
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<td>AGAG 2</td>
<td>Animal Nutrition</td>
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<td>CSU, UC</td>
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<td>AGAG 51</td>
<td>Animal Handling and Restraint</td>
<td>3</td>
<td>CSU</td>
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<tr>
<td>AGAG 94</td>
<td>Animal Breeding</td>
<td>3</td>
<td>CSU</td>
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<tr>
<td>AGAG 99</td>
<td>Special Projects in Agriculture</td>
<td>2</td>
<td>CSU</td>
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**AGHE 65 — Veterinary Radiography**

- **18 hours lecture**
- **54 hours lab**
- **Prerequisite:** AGHE 86 and Formal admittance to the Registered Veterinary Technology Program
- Concepts and skills of veterinary positioning of canine, feline, avian, reptilian species, and livestock for radiography; processing of the radiograph; radiation safety; technique and instrumentation; contrast radiography, dental radiology and advanced imaging as ultrasound, MRI, CT scan, nuclear isotopes scans. Emphasizes performance of x-ray procedures for the veterinary practitioner.

**AGHE 79 — Laboratory Animal Medicine and Care**

- **36 hours lecture**
- **54 hours lab**
- Laboratory animal medicine, care and procedures, rules and regulations governing laboratory animals.

**AGHE 83A — Work Experience in Animal Health**

- **May be taken for Pass/No Pass only**
- **75 to 150 hours lab**
- **Prerequisite:** AGAN 51 and Compliance with Work Experience regulations as designated in the College Catalog
- This course is designed to provide Registered Veterinary Technology majors with actual on-the-job experience at an approved work station which is related to classroom instruction. A minimum of 75 paid clock hours or 60 non-paid clock hours per semester is required for each one unit of credit. It is recommended that the hours per week are equally distributed throughout the semester. Students who repeat this course will improve skills through further instruction and practice.

**AGHE 84B — Applied Animal Health Procedures**

- **54 hours lab**
- **Prerequisite:** Formal Admittance to the Registered Veterinary Technology Program
- A field study course that emphasizes practical experience in applied clinical procedures and techniques, including treatments, preventive health care and minor surgical procedures with school owned 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**

- **18 hours lecture**
- **Prerequisite:** AGHE 60 and completion of the Registered Veterinary Technology program.
- Prepares students for national and state veterinary technician registration examinations. Includes exposure to the types of questions encountered in registration examinations, question analysis strategies, and review of important anatomical, physiological, and nursing concepts.

**AGAG 1 — Animal Science**

- **54 hours lecture**
- **Prerequisite:** MATH 50
- Fundamental problems and essential concepts of animal production. Types of domestic animals and their utilization by humans.

**AGAG 2 — Animal Nutrition**

- **54 hours lecture**
- Composition of feeds and their utilization by domestic animals, including digestive physiology, animal assessment, feed appraisal, and compiling of rations.

**AGAG 51 — Animal Handling and Restraint**

- **36 hours lecture**
- **54 hours lab**
- Methods of proper handling for large and small animals, including chemical and physical techniques of restraint. Field trip required.

**AGAG 94 — Animal Breeding**

- **54 hours lecture**
- The science of animal breeding, including fundamentals of inheritance, reproduction and breeding systems for domestic animals. Artificial insemination, embryo manipulation and current topics in reproductive biotechnology will also be included.
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<tr>
<th>Course Code</th>
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<tbody>
<tr>
<td>AGLI 12</td>
<td>Exotic Animal Management</td>
<td>3</td>
<td>Care and management of exotic and alternative livestock species with emphasis on identification, health maintenance, handling techniques, nutrition and reproduction. Includes analysis of industry trends and principal marketing uses of exotic animals.</td>
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<tr>
<td>AGLI 14</td>
<td>Swine Production</td>
<td>3</td>
<td>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.</td>
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<tr>
<td>AGLI 16</td>
<td>Horse Production and Management</td>
<td>4</td>
<td>Selection, utilization, and management of the light horse. Emphasis is on evaluation, health care, and handling skills.</td>
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<tr>
<td>AGLI 17</td>
<td>Sheep Production</td>
<td>3</td>
<td>Various types of sheep enterprises and the ways and means of entering them. Sheep management, sheep handling, feeding, shearing, breeding, lambing, and marketing. Practical skills are taught on the school farm and sheep farms in the area. Field trips required.</td>
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<tr>
<td>AGLI 18</td>
<td>Horse Ranch Management</td>
<td>4</td>
<td>Skills and procedures used in the management of an equine business. Includes business plans and record keeping, staff and financial management, horse care and training, and farm design for a variety of horse operations.</td>
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<tr>
<td>AGLI 19</td>
<td>Horse Hoof Care</td>
<td>2</td>
<td>Proper horse hoof care; shoeing, trimming and disease recognition and control.</td>
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<tr>
<td>AGLI 20</td>
<td>Horse Behavior and Training</td>
<td>2</td>
<td>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.</td>
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<tr>
<td>AGLI 30</td>
<td>Beef Production</td>
<td>3</td>
<td>Principles and practices in the selection and management of feeder, market, and breeding beef cattle. Economics of production, retail product, utilization of farm-grown feeds, and feedlot operation. Field trip required.</td>
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<tr>
<td>AGLI 34</td>
<td>Livestock Judging and Selection</td>
<td>2</td>
<td>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.</td>
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<tr>
<td>AGLI 96</td>
<td>Animal Sanitation and Disease Control</td>
<td>3</td>
<td>Prevention and control of infectious diseases affecting domestic animals, including basic disease concepts, transmission of infectious diseases, principles of sanitation and fundamentals of immunology.</td>
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<tr>
<td>AGLI 97</td>
<td>Artificial Insemination of Livestock</td>
<td>2</td>
<td>Theory and application of artificial insemination of domestic animals, including semen evaluation and processing, heat synchronization, and pregnancy diagnosis.</td>
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<tr>
<td>AGOR 2</td>
<td>Plant Propagation/Greenhouse Management</td>
<td>3</td>
<td>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.</td>
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<tr>
<td>AGOR 4</td>
<td>Park Management</td>
<td>3</td>
<td>Management and operation of municipal park departments. Includes the development of budgets, purchasing, park policies, planning and scheduling.</td>
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<tr>
<td>AGOR 5</td>
<td>Park Facilities</td>
<td>3</td>
<td>Management and operation of different types of park facilities. Includes the management of sports fields, recreation centers, campgrounds, aquatic facilities and golf courses.</td>
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<td>AGOR 13</td>
<td>Landscape Design</td>
<td>3</td>
<td>Fundamentals and implementation of landscape design. Principles of design, the design process, drafting, graphics, site evaluation, landscaping materials, and plant usage. Projects emphasize residential and small commercial sites. Field trips and off-campus assignments required.</td>
</tr>
<tr>
<td>AGOR 14</td>
<td>Advanced Landscape Design</td>
<td>3</td>
<td>Principles of design, the design process, drafting, graphics, site evaluation, landscaping materials, and plant usage. Projects emphasize residential and small commercial sites. Field trips and off-campus assignments required.</td>
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<tr>
<td>AGOR 15</td>
<td>Interior Landscaping</td>
<td>3</td>
<td>Design, installation and maintenance practices used in interior landscaping. Includes identification, culture and care of plants suitable for interior use. Field trip required.</td>
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Degree Applicable, CSU

Degree Applicable, CSU, UC

Degree Applicable

Degree Applicable, CSU
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<tr>
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<tr>
<td>AGOR 24</td>
<td>Integrated Pest Management</td>
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<td>AGOR 29</td>
<td>Ornamental Plants - Herbaceous</td>
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<td>AGOR 30</td>
<td>Ornamental Plants - Trees and Woody Shrubs</td>
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<tr>
<td>AGOR 32</td>
<td>Landscaping and Nursery Management</td>
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<tr>
<td>AGOR 35</td>
<td>Ornamental Plants for Southwest Climates</td>
<td>3</td>
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<td>AGOR 39</td>
<td>Turf Grass Production and Management</td>
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<tr>
<td>AGOR 40</td>
<td>Sports Turf Management</td>
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<tr>
<td>AGOR 50</td>
<td>Soil Science and Management</td>
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<td>AGOR 51</td>
<td>Tractor and Landscape Equipment Operations</td>
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<td>AGOR 52</td>
<td>Hydraulics</td>
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<td>AGOR 53</td>
<td>Small Engine Repair I</td>
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<td>AGOR 54</td>
<td>Small Engine Repair II</td>
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<td>AGOR 55</td>
<td>Diesel Engine Repair</td>
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<td>AGOR 56</td>
<td>Engine Diagnostics</td>
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<tr>
<td>AGOR 57</td>
<td>Power Train Repair</td>
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36 hours lecture
54 hours lab

Identification, growth habits, culture and ornamental use of annuals, perennials, groundcovers, shrubs, trees, cacti, and succulents which are native to California and the Southwestern region.

Introduction to cultivation, maintenance, and management of turfgrasses utilized for athletic fields, golf courses, parks, cemeteries, and commercial and residential lawns. Identification, installation, cultural requirements, and maintenance practices are emphasized. Field trips required.

Prerequisite: AGOR 39 or equivalent experience

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 required.

Prepares students to work in the sports turf industry. Emphasizes turf cultural techniques used in sports turf management. Includes turf surfaces used on baseball, football, soccer, tennis, golf courses, driving ranges, and other sports fields in both professional and amateur sports. Field trips required.

Prerequisite: AGOR 39 or equivalent experience

Analysis and evaluation of tractor engine power failures with hands-on experience in the proper diagnostic procedures of power equipment. Includes service, maintenance and repair of tractor electrical systems: electrical wiring, voltage regulators, generators, alternators, switches, gauges, batteries and test equipment.

Service, maintenance, and repair of power trains. Includes clutches, transmissions, differentials, power take-off units, and final drives used to transmit power on tractors and other outdoor power equipment.
Course Descriptions

■ AGOR 62 — Landscape Irrigation - Design and Installation  3 Units
Degree Applicable, CSU
(May be taken for option of letter grade or Pass/No Pass)
36 hours lecture
54 hours lab
Design and installation of turf and ornamental irrigation systems. Design techniques, sprinkler system components and hydraulic principles used in nursery management, interior design, residential and commercial landscaping. Special emphasis is given to water conservation incorporating controlled flow technologies.

■ AGOR 63 — Landscape Irrigation Systems Management 3 Units
Degree Applicable, CSU
(May be taken for option of letter grade or Pass/No Pass)
36 hours lecture
54 hours lab
Systematic approach to water conservation in landscapes. Repair techniques that will allow a current system to efficiently operate to its initial design. Trouble shooting procedures including field testing of valves and controllers. Irrigation efficiency testing will be incorporated to demonstrate proper methods of water audits and system evaluation.

■ AGOR 64 — Landscape Irrigation - Drip and Low Volume3 Units
Degree Applicable
(May be taken for option of letter grade or Pass/No Pass)
36 hours lecture
54 hours lab
Conservation of water in landscapes by utilization of drip and low-flow irrigation practices. Design, installation techniques, operation and maintenance of drip and low-flow irrigation systems, including determination of irrigation requirements, selection of emitters and low-flow devices, and uniformity of water distribution. Includes hands-on experience in design and installation techniques.

■ AGOR 71 — Landscape Construction Fundamentals  3 Units
Degree Applicable, CSU
(May be taken for option of letter grade or Pass/No Pass)
36 hours lecture
54 hours lab
Construction techniques and tools used in landscaping with construction projects that include surveying techniques, utilities (gas, water, and electricity), woodworking, and masonry.

■ AGOR 72 — Landscape Hardscape Applications 3 Units
Degree Applicable, CSU
(May be taken for option of letter grade or Pass/No Pass)
36 hours lecture
54 hours lab
Landscape construction pertaining to hardscape featured in the landscape. Estimation and installation of fences, walls, planters, patios, lighting, barbecues, gazebos, decks, ponds, spas, fountains and pools. Students will gain hands-on experience in the laboratory activities.

■ AGOR 73 — Landscaping Laws, Contracting, and Estimating  3 Units
Degree Applicable, CSU
(May be taken for option of letter grade or Pass/No Pass)
54 hours lecture
Landscape laws, contracting, and estimating as they pertain to landscape construction. Information covered will be helpful for the Landscape Contractor’s (C-27 classification) licensing exam administered by the state of California. Off campus assignments required.

■ AGOR 75 — Urban Arboriculture  3 Units
Degree Applicable
(May be taken for option of letter grade or Pass/No Pass)
36 hours lecture
54 hours lab
Care and management of ornamental trees. Includes pruning techniques, fruit tree care, bracing, cabling, and pest control. Safe practices in the use of equipment including the use of ropes, chippers, boom trucks, chain saws, and identification and evaluation of common trees. Prepares students for the tree worker and arborist certification exams.

■ AGOR 91 — Work Experience in Nursery Operations  1 to 4 Units
Degree Applicable
(May be taken for Pass/No Pass only)
75 to 300 hours lab
Prerequisite: Completion with Work Experience regulations as designated in the College Catalog.
This course is designed to provide majors with actual-on-the-job experience at an approved work site using skills and knowledge from 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. This course is available to students achieving advanced standing (minimum 12 units in major or equivalent experience.)

AGRICULTURE: PET SCIENCE

■ AGPE 70 — Pet Shop Management  3 Units
Degree Applicable
54 hours lecture
Pet shop operations and the economic aspects of the pet industry. Organization and operation of pet shops, animal care practices, and sound business management practices.

■ AGPE 71 — Canine Management  3 Units
Degree Applicable
54 hours lecture
Selection, feeding, housing, breeding and management of dogs, including commercial aspects of the dog as a domestic pet. Laboratory work will include practical experience in the handling and training of dogs. May include field trips.

■ AGPE 72 — Feline Management  3 Units
Degree Applicable
54 hours lecture
Advisory: Eligibility for ENGL 68
Care and management of cats including breed identification and characteristics, grooming, showing, nutrition, practical care, behavior, breeding, and housing.

■ AGPE 73 — Tropical and Coldwater Fish Management  2 Units
Degree Applicable
36 hours lecture
Advisory: Eligibility for ENGL 68
Care and keeping of marine and freshwater aquarium fishes, plants, and invertebrates. Guidance on setting up aquariums, choosing compatible species, feeding, health care, breeding and raising fish.

■ AGPE 74 — Reptile Management  2 Units
Degree Applicable
36 hours lecture
Advisory: Eligibility for ENGL 68
Care and maintenance of reptiles and amphibians, including snakes, lizards, turtles, tortoises, newts, salamanders and frogs. Identification and characteristics of reptiles commonly kept as pets. Housing, feeding, health maintenance, breeding and raising of reptiles.

■ AGPE 76 — Aviculture - Cage and Aviary Birds  3 Units
Degree Applicable
54 hours lecture
Cage and aviary birds marketed in the wholesale and retail pet trade. Identification, nutrition, breeding, disease prevention and control, aviary construction. Psittacines, soft bills, finches, game birds, poultry and ornamental waterfowl.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Description</th>
<th>Lecture Hours</th>
<th>Lab Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>AIRC 10</td>
<td>Technical Mathematics in Air Conditioning and Refrigeration</td>
<td>2</td>
<td>Develops mathematical skills required for the study and application of air conditioning and refrigeration including measurements and equations applied to heat loads, air distribution, electricity, and the design of air conditioning and refrigeration equipment.</td>
<td>27</td>
<td></td>
</tr>
<tr>
<td>AIRC 11</td>
<td>Welding for Air Conditioning and Refrigeration</td>
<td>2</td>
<td>Fundamentals of welding related to the field of air conditioning and refrigeration with emphasis on the sterile techniques and skills required for joining copper refrigerant lines and the procedures for light fabrication.</td>
<td>18</td>
<td>54</td>
</tr>
<tr>
<td>AIRC 12</td>
<td>Air Conditioning Codes and Standards</td>
<td>3</td>
<td>Building codes and standards as they apply to the air conditioning and refrigeration industry. Develops skills necessary to read and interpret building codes and resolve installation and service problems as they apply to the construction industry.</td>
<td>54</td>
<td></td>
</tr>
<tr>
<td>AIRC 20</td>
<td>Refrigeration Fundamentals</td>
<td>4</td>
<td>Principles of mechanical refrigeration based on the refrigeration cycle and associated mechanical components. Develops skills for interpreting service gauge pressures and sensible temperatures, system dehydation techniques, and the safe handling and containment of refrigerants.</td>
<td>48</td>
<td>71</td>
</tr>
<tr>
<td>AIRC 25</td>
<td>Electrical Fundamentals for Air Conditioning and Refrigeration</td>
<td>5</td>
<td>Electrical principles and practices used in air conditioning, refrigeration, and heat pump systems as applied to the development and interpretation of schematics and the sequential approach to wiring circuits including power supplies, motors, and controls. Develops skills for designing electrical circuits, and electrical trouble shooting.</td>
<td>66</td>
<td>54</td>
</tr>
<tr>
<td>AIRC 26</td>
<td>Gas Heating Fundamentals</td>
<td>2</td>
<td>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.</td>
<td>36</td>
<td></td>
</tr>
<tr>
<td>AIRC 27</td>
<td>Heat Load Calculations and Design</td>
<td>4</td>
<td>Heat loss and heat gain will be examined, developed and applied to residential dwellings air conditioning systems. Equipment sizing, selection and duct design based on the Heat Load of the structure. Heat Load calculation software will be explored and used to aid in the process.</td>
<td>72</td>
<td></td>
</tr>
<tr>
<td>AIRC 30</td>
<td>Commercial Electrical for Air Conditioning and Refrigeration</td>
<td>4</td>
<td>Electrical control of commercial air conditioning and refrigeration equipment emphasizing time clocks, defrost, three phase transformers, three phase motors, timers, sequencers, starting methods and troubleshooting of three phase systems.</td>
<td>54</td>
<td>54</td>
</tr>
<tr>
<td>AIRC 31</td>
<td>Air Properties and Measurement</td>
<td>1.5</td>
<td>Investigates the air-side operating theory and application of comfort cooling systems. This course will broaden the student’s understanding of air conditioning systems by addressing psychrometrics to include the measurement of dry bulb and wet bulb temperatures, relative humidity, dew point temperatures, and sensible and latent heat processes.</td>
<td>27</td>
<td></td>
</tr>
<tr>
<td>AIRC 61</td>
<td>Building Automation Fundamentals</td>
<td>2.5</td>
<td>Basics of commercial HVAC control theory as it applies to electric, pneumatic, and digital control systems. Principles of chiller plant operation, air distribution, Variable Air Volume, constant air systems, and multizone systems.</td>
<td>36</td>
<td>27</td>
</tr>
<tr>
<td>AIRC 63</td>
<td>Building Control Networks</td>
<td>3</td>
<td>Building Control Network implementations and protocol standards including web based applications, BACnet, Ethernet, LonTalk, and proprietary systems. Routers, installation, and troubleshooting will also be studied.</td>
<td>54</td>
<td></td>
</tr>
<tr>
<td>AIRC 65</td>
<td>Building Automation Networks and Programming</td>
<td>3</td>
<td>Programming HVAC direct digital controllers using line (text) programming, icon based programming, and template programming. Stresses good programming practices including complete program documentation.</td>
<td>18</td>
<td>108</td>
</tr>
</tbody>
</table>

Advisory: AIRC 12 and AIRC 25

Advisory: AIRC 20, AIRC 25, AIRC 34

Advisory: AIRC 20

Advisory: AIRC 20, AIRC 30 taken prior

Advisory: AIRC 20, AIRC 25, AIRC 34

Advisory: CISN 11
**Course Descriptions**

- **AIRT 151 — Aircraft Recognition and Performance**  
  3 Units  
  Degree Applicable
  
  54 hours lecture  
  Advisory: AERO 23 or AERO 100  
  Formerly AIRT 41.
  
  Designed for students who want to become air traffic controllers for the Federal Aviation Administration (FAA). Students will learn to recognize the distinctive features of aircraft, classify aircraft as to FAA category and class, and analyze aircraft for performance characteristics required for air traffic control separation. Commercial Pilot majors are encouraged to take the class as an elective course.

- **AIRT 201 — Terminal Air Traffic Control**  
  3 Units  
  Degree Applicable, CSU
  
  54 hours lecture  
  Advisory: AERO 23 or AERO 100 and AIRT 41 or AIRT 151  
  Formerly AIRT 42A.
  
  Designed for students who want to become air traffic controllers for the Federal Aviation Administration (FAA). Students will learn about aircraft operation in the National Airspace System, control tower operations, terminal radar control, radio communication techniques and phraseology, and responding to emergencies.

- **AIRT 201L — Air Traffic Control Laboratory**  
  1 Unit  
  Degree Applicable
  
  54 hours lab  
  Advisory: AERO 100  
  Formerly AIRT 51.
  
  Concepts, procedures, and skills related to air traffic control. Microphone technique, voice control, phraseology, facility and interfacility coordination, strip markings, airport traffic control, weather observing, and control tower functions.

- **AIRT 203 — Enroute Air Traffic Control**  
  3 Units  
  Degree Applicable, CSU
  
  54 hours lecture  
  Advisory: AERO 23 or AERO 100 and AIRT 41 or AIRT 151  
  Formerly AIRT 42B.
  
  Enroute air traffic control operations in the National Airspace System. Includes radar and non-radar separation rules, enroute air traffic control clearances, emergencies and search and rescue, and future air traffic control technologies. This course is designed for students who want to become air traffic controllers for the Federal Aviation Administration (FAA).

- **AIRT 203L — Enroute Radar Laboratory**  
  1 Unit  
  Degree Applicable
  
  54 hours lab  
  Advisory: AERO 100  
  Formerly AIRT 55.
  
  Simulation of an air traffic control radar facility concentrating on air route traffic control, and approach and departure procedures using appropriate phraseology, flight progress strip markings and radar separation standards.

- **AIRT 251 — Air Traffic Control Team Skills**  
  1.5 Units  
  Degree Applicable, CSU
  
  27 hours lecture  
  Advisory: AIRT 201 or AIRT 42A  
  Formerly AIRT 43.
  
  Leadership skills for aviation professionals, with emphasis on FAA Crew Resource Management. This course will introduce students to the skills required to work in an aviation group environment. Students will be able to identify personality types and temperaments, analyze skills necessary to manage and improve individual performance, work effectively in the team environment, and recognize human factors that affect air traffic control, identify “threat and error” countermeasures.

- **AIRT 253 — Work Experience in Air Traffic Control**  
  1 Unit  
  Degree Applicable
  
  (May be taken for Pass/No Pass only)  
  75 hours lab  
  Prerequisite: Completion with Work Experience regulations as designated in the College Catalog  
  Formerly AIRT 47.
  
  On-the-job experience in an approved FAA work station. A minimum of 75 paid clock hours or 60 non-paid clock hours per semester is required for each one unit of credit. It is recommended that the hours per week are equally distributed throughout the semester.

- **AIRM 65A — Aircraft Powerplant Maintenance**  
  13 Units  
  Technology
  
  Airframe and Aircraft Powerplant Technology: Reciprocating and Turbine
  
  108 hours lecture  
  376 hours lab  
  Prerequisite: AIRM 65A or (AIRM 95A and AIRM 95B and AIRM 96A and AIRM 96B)
  
  Reciprocating and turbine engine systems and components. Approved and required for the FAA powerplant certification and Airframe and Aircraft Powerplant Maintenance Technology major.

- **AIRM 65B — Aircraft Powerplant Maintenance**  
  13 Units  
  Technology
  
  Reciprocating and Turbine  
  Degree Applicable, CSU
  
  108 hours lecture  
  376 hours lab  
  Prerequisite: AIRM 65A or (AIRM 95A and AIRM 95B and AIRM 96A and AIRM 96B)
  
  Reciprocating and turbine engine systems and components. Approved and required for the Federal Aviation Administration (FAA) powerplant certification and Airframe and Aircraft Powerplant Maintenance Technology major.
Course Descriptions

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AIRM 66A</td>
<td>Aircraft Airframe Maintenance</td>
<td>13</td>
<td>Degree Applicable, CSU</td>
</tr>
<tr>
<td></td>
<td>Structures</td>
<td></td>
<td>108 hours lecture 376 hours lab This course is approved by the Federal Aviation Administration FAA and required for all Aircraft Powerplant and Airframe Maintenance Technology majors. Topics span aerodynamics, design theory, construction, inspection, maintenance, repair and alteration of aircraft airframe structures.</td>
</tr>
<tr>
<td>AIRM 66B</td>
<td>Airframe Maintenance Technology</td>
<td>13</td>
<td>Degree Applicable, CSU</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>108 hours lecture 376 hours lab Prerequisite: AIRM 66A OR (AIRM 90A and AIRM 90B and AIRM 91A and AIRM 91B) Airframe systems and components. Approved and required for the Federal Aviation Administration (FAA) and required airframe certification and the Airframe and Aircraft Powerplant Maintenance Technology major.</td>
</tr>
<tr>
<td>AIRM 70A</td>
<td>Aircraft Maintenance Electricity</td>
<td>3</td>
<td>Degree Applicable</td>
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<tr>
<td></td>
<td>and Electronics</td>
<td></td>
<td>36 hours lecture 71 hours lab Advisory: AIRM 71 Electrical theory, series and parallel circuits, batteries, and electrical measuring instruments. Required for Federal Aviation Administration (FAA) certification.</td>
</tr>
<tr>
<td>AIRM 70B</td>
<td>Aircraft Maintenance Electricity</td>
<td>3</td>
<td>Degree Applicable</td>
</tr>
<tr>
<td></td>
<td>and Electronics</td>
<td></td>
<td>36 hours lecture 71 hours lab Advisory: AIRM 70A and AIRM 71 Principles of alternating current electricity with emphasis on components and circuits. Required for FAA certification.</td>
</tr>
<tr>
<td>AIRM 71</td>
<td>Aviation Maintenance Science</td>
<td>6</td>
<td>Degree Applicable</td>
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<tr>
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<td></td>
<td>108 hours lecture Federal aviation regulations, interpretation of aircraft drawings, basic physics, technical mathematics, and aircraft weight and balance computations. FAA approved course required of all aircraft powerplant and airframe maintenance technology majors.</td>
</tr>
<tr>
<td>AIRM 72</td>
<td>Aircraft Materials and Processes</td>
<td>1.5</td>
<td>Degree Applicable, CSU</td>
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<td></td>
<td>18 hours lecture 36 hours lab Advisory: AIRM 71 AND AIRM 73 Part 147 Federal Aviation Administration (FAA) approved course covering aviation materials, non-destructive testing, basic heat-treating and machining.</td>
</tr>
<tr>
<td>AIRM 73</td>
<td>Aircraft Welding</td>
<td>1.5</td>
<td>Degree Applicable, CSU</td>
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<td></td>
<td>18 hours lecture 36 hours lab Advisory: AIRM 71 or AIRM 72 Theory and techniques of gas and inert gas welding used in aircraft construction and repair. Required for Federal Aviation Administration (FAA) airframe and powerplant certification.</td>
</tr>
<tr>
<td>AIRM 74</td>
<td>Aircraft Maintenance Technology</td>
<td>2</td>
<td>Degree Applicable, CSU</td>
</tr>
<tr>
<td></td>
<td>and Work Experience</td>
<td></td>
<td>(May be taken for Pass/No Pass only) 120 to 150 hours lab 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 or 150 paid work hours. The employer/evaluator will have the student perform aircraft maintenance work under direct supervision at a maintenance facility.</td>
</tr>
<tr>
<td>AIRM 80</td>
<td>Laboratory Studies in Aircraft Maintenance</td>
<td>.5 to 1</td>
<td>Degree Applicable, CSU</td>
</tr>
<tr>
<td></td>
<td>Technology</td>
<td></td>
<td>(May be taken for Pass/No Pass only) 27 to 54 hours lab Additional lab instruction for students lacking Federal Aviation Authority (FAA) mandated hours to complete a training certificate, required remediation of program modules or laboratory assignments.</td>
</tr>
<tr>
<td>AIRM 90A</td>
<td>Airframe Maintenance Technology</td>
<td>3</td>
<td>Degree Applicable, CSU</td>
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<td></td>
<td></td>
<td>36 hours lecture 71 hours lab Advisory: AIRM 70A, AIRM 70B, AIRM 71, AIRM 72, AIRM 73 A Federal Aviation Administration (FAA) approved course covering aircraft flight, flight control and construction methods and procedures</td>
</tr>
<tr>
<td>AIRM 90B</td>
<td>Airframe Maintenance Technology</td>
<td>3</td>
<td>Degree Applicable, CSU</td>
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<td></td>
<td>36 hours lecture 71 hours lab Prerequisite: AIRM 90A or AIRM 90B Aircraft structural designs, station numbers, aviation nomenclature and definitions. Approved by the Federal Aviation Administration (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>Degree Applicable, CSU</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>36 hours lecture 71 hours lab Prerequisite: (AIRM90A and AIRM 90B) or AIRM 66B Aircraft wood structures, coverings, finishes, and maintenance. 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>Degree Applicable, CSU</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>36 hours lecture 71 hours lab Prerequisite: (AIRM 90A and AIRM 90B and AIRM 91A) or AIRM 66 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>
<tr>
<td>AIRM 92A</td>
<td>Airframe Maintenance Technology</td>
<td>3</td>
<td>Degree Applicable, CSU</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>36 hours lecture 71 hours lab Prerequisite: (AIRM 90A and AIRM 90B and AIRM 91A and AIRM 91B) or AIRM 66A Aircraft hydraulic and pneumatic power systems, landing gear and wheel and brake systems. Approved by the Federal Aviation Administration (FAA) and required for the Airframe and Aircraft Powerplant Maintenance Technology major.</td>
</tr>
<tr>
<td>AIRM 92B</td>
<td>Airframe Maintenance Systems</td>
<td>3</td>
<td>Degree Applicable, CSU</td>
</tr>
<tr>
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<td></td>
<td></td>
<td>36 hours lecture 71 hours lab Prerequisite: AIRM 92A or AIRM 66A Aircraft warning systems, aircraft instrument systems and aircraft fuel storage and transfer systems. Approved by the FAA and required for the Aircraft Airframe and Powerplant Maintenance Technology major.</td>
</tr>
</tbody>
</table>
Course Description:

AIRM 93A — Airframe Maintenance Technology: Systems 3 Units
Degree Applicable
36 hours lecture
71 hours lab
Prerequisite: (AIRM 92A and AIRM 92B) or AIRM 66A
Federal Aviation Administration (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 93B — Airframe Maintenance Technology: Fire Suppression 3 Units
Degree Applicable
36 hours lecture
71 hours lab
Prerequisite: (AIRM 92A and AIRM 92B and AIRM 93A) or AIRM 66A
Aircraft fire detection and suppression systems. Aircraft inspection
requirements and procedures. Approved by the Federal Aviation
Administration (FAA) and required for the Airframe and Aircraft
Powerplant Maintenance Technology major.

AIRM 95A — Aircraft Powerplant Maintenance Technology 3 Units
Degree Applicable
36 hours lecture
71 hours lab
Prerequisite: AIRM 70A, AIRM 70B, AIRM 71, AIRM 72, AIRM 73
Federal Aviation Administration (FAA) approved course covering piston powerplant theory. Includes calculations and construction methods.

AIRM 95B — Aircraft Powerplant Maintenance Technology: Reciprocating Engines 3 Units
Degree Applicable
36 hours lecture
71 hours lab
Prerequisite: AIRM 95A or AIRM 65B
Federal Aviation Administration (FAA) approved course covering piston engine overhaul, inspection, and troubleshooting procedures.

AIRM 96A — Aircraft Powerplant Maintenance Technology: Turbine Engines 3 Units
Degree Applicable
36 hours lecture
71 hours lab
Prerequisite: (AIRM 95A and AIRM 95B) or AIRM 65B
Aircraft turbine engine history, construction, thrust formulas and turbine engine types. Approved by the Federal Aviation Administration (FAA) and required for the Airframe and Aircraft Powerplant Maintenance Technology Major. Required for FAA certification.

AIRM 96B — Aircraft Powerplant Maintenance Technology: Propellers 3 Units
Degree Applicable
36 hours lecture
71 hours lab
Prerequisite: (AIRM 95A and AIRM 95B and AIRM 96A) or AIRM 65B
Propeller theory, nomenclature, application, constant speed devices, and propeller controls. Approved by the Federal Aviation Administration (FAA) and required for the Airframe and Aircraft Powerplant Maintenance Technology Major. Required for FAA certification.

AIRM 97A — Aircraft Powerplant Maintenance Technology: Instrumentation 3 Units
Degree Applicable
36 hours lecture
71 hours lab
Prerequisite: (AIRM 97A and AIRM 97B) or AIRM 65A
Propeller theory, nomenclature, application, constant speed devices, and propeller controls. Approved by the Federal Aviation Administration (FAA) and required for the Airframe and Aircraft Powerplant Maintenance Technology Major. Required for FAA certification.

AIRM 97B — Aircraft Powerplant Maintenance Technology: Fuel Meter Systems 3 Units
Degree Applicable
36 hours lecture
71 hours lab
Prerequisite: AIRM 97A or AIRM 65A
Propeller theory, nomenclature, application, constant speed devices, and propeller controls. Approved by the Federal Aviation Administration (FAA) and required for the Airframe and Aircraft Powerplant Maintenance Technology Major.

AIRM 98A — Aircraft Powerplant Maintenance Technology: Ignition Systems 3 Units
Degree Applicable
36 hours lecture
71 hours lab
Prerequisite: (AIRM 97A and AIRM 97B) or AIRM 65A
Aircraft ignition system theory and maintenance. Approved by the FAA and required for the Airframe and Aircraft Powerplant Maintenance Technology Major.

AIRM 98B — Aircraft Powerplant Maintenance Technology: Lubricating Systems 3 Units
Degree Applicable
36 hours lecture
71 hours lab
Prerequisite: (AIRM 97A and AIRM 97B and AIRM 98A) or AIRM 65A
Reciprocating and turbine engine lubrication systems. Approved by the Federal Aviation Administration (FAA) and required for the Airframe and Aircraft Powerplant Maintenance Technology Major.

AD 1 — Alcohol/Drug Dependency 3 Units
Degree Applicable, CSU
54 hours lecture
Presents an overview of alcohol and chemical dependencies and ramifications. Explores the impact these dependencies have upon the individual’s social, psychological, economic, physiological well-being, community and family concerns. Examines the “myths,” images, and stereotypes about substances and substance abusers. Explores various approaches to recovery. Includes familiarization with terms.

AD 2 — Physiological Effects of Alcohol/Drugs 3 Units
Degree Applicable, CSU
54 hours lecture
Examines effects of alcohol and drugs on the human body. Includes tolerance, habituation, cross-tolerance and synergistic effect.

AD 3 — Chemical Dependency: Intervention, Treatment and Recovery 3 Units
Degree Applicable, CSU
54 hours lecture
Examines techniques used in chemical dependency treatment. Analyzes types of treatment programs and the essentials of recovery.

AD 4 — Issues in Domestic Violence 3 Units
Degree Applicable
54 hours lecture
Examines the history, law and psychology of domestic violence; cultural/social aspects; relationship to substance abuse.

AD 5 — Chemical Dependency: Prevention and Education 1.5 Units
Degree Applicable, CSU
27 hours lecture
Reviews and examines drug prevention effectiveness, at both the private and public level. Appraises personal attitudes, past and present, and their influence on societal norms. Evaluates current prevention programs and the necessary steps for developing, funding and managing a program.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Units</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>AD 6</td>
<td>Dual Diagnosis</td>
<td>3</td>
<td>Degree Applicable, CSU</td>
</tr>
<tr>
<td>AD 8</td>
<td>Group Process and Leadership</td>
<td>3</td>
<td>Degree Applicable</td>
</tr>
<tr>
<td>AD 9</td>
<td>Family Counseling</td>
<td>3</td>
<td>Degree Applicable</td>
</tr>
<tr>
<td>AD 10</td>
<td>Client Record and Documentation</td>
<td>1.5</td>
<td>Degree Applicable</td>
</tr>
<tr>
<td>AD 11</td>
<td>Techniques of Intervention and Referral</td>
<td>3</td>
<td>Degree Applicable</td>
</tr>
<tr>
<td>AD 13</td>
<td>Internship/Seminar</td>
<td>4</td>
<td>Degree Applicable, CSU</td>
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<tr>
<td>AD 14</td>
<td>Advanced Internship/Seminar</td>
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<tr>
<td>AMLA 21</td>
<td>Accent Reduction</td>
<td>2</td>
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</tr>
<tr>
<td>AMLA 22</td>
<td>American Language Interpersonal Communication</td>
<td>2</td>
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<tr>
<td>AMLA 23</td>
<td>American Language Formal Speaking</td>
<td>2</td>
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</tr>
<tr>
<td>AMLA 24</td>
<td>Idiomatic English</td>
<td>2</td>
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</tr>
<tr>
<td>AMLA 31</td>
<td>American Language Basic Reading</td>
<td>4</td>
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<tr>
<td>AMLA 32</td>
<td>American Language Advanced Reading</td>
<td>4</td>
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<tr>
<td>AMLA 33</td>
<td>American Language Intermediate Reading</td>
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</tr>
<tr>
<td>AMLA 41</td>
<td>American Language Basic Writing</td>
<td>4</td>
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</tr>
<tr>
<td>AMLA 42</td>
<td>American Language Intermediate Writing</td>
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</table>

**American Language**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Units</th>
<th>Notes</th>
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<tbody>
<tr>
<td>AMLA 21S</td>
<td>Accent Reduction</td>
<td>2</td>
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<tr>
<td>AMLA 22S</td>
<td>American Language Interpersonal Communication</td>
<td>2</td>
<td>Not Degree Applicable</td>
</tr>
<tr>
<td>AMLA 23S</td>
<td>American Language Formal Speaking</td>
<td>2</td>
<td>Not Degree Applicable</td>
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</tbody>
</table>

**Course Descriptions**

- **AD 6 — Dual Diagnosis**: 3 Units
  Degree Applicable, CSU
  54 hours lecture
  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
  Degree Applicable
  54 hours lecture
  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
  Degree Applicable
  54 hours lecture
  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
  Degree Applicable
  27 hours lecture
  Advisory: AD 1, AD 2, AD 3 taken prior and AD 4, AD 5, AD 6 taken prior or concurrently
  Identify documentation methods required by government regulatory bodies in clinical records. Emphasis on biopsychosocial history.

- **AD 11 — Techniques of Intervention and Referral**: 3 Units
  Degree Applicable
  54 hours lecture
  Advisory: AD 1, AD 2, AD 3 taken prior and AD 4, AD 5, AD 6 taken prior or concurrently
  Practice techniques used for crisis intervention, counseling, intake and referral. Experiential format, allows participants to practice skills in attentive listening, and responding to levels of client communication.

- **AD 13 — Internship/Seminar**: 4 Units
  (May be taken for Pass/No Pass only)
  27 hours lecture
  126 hours lab
  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**: 4 Units
  (May be taken for Pass/No Pass only)
  27 hours lecture
  126 hours lab
  Prerequisite: AD 10 and AD 13
  Second semester course focusing on the application of values, concepts and skills learned to actual process of helping chemically dependent persons.

- **AMERICAN LANGUAGE**

  - **AMLA 21S — Accent Reduction**: 2 Units
    (May be taken for option of letter grade or Pass/No Pass)
    36 hours lecture
    Prerequisite: AMLA 31R taken previously or concurrently
    Pronunciation and listening for non-native speakers. Focus on improving articulation, stress and intonation patterns, and listening.

  - **AMLA 22S — American Language Interpersonal Communication**: 2 Units
    (May be taken for option of letter grade or Pass/No Pass)
    36 hours lecture
    Enhances ability of non-native speakers to communicate in personal and academic situations. Emphasis on grammatical accuracy and sophistication as well as confidence in communications.

  - **AMLA 23S — American Language Formal Speaking**: 2 Units
    (May be taken for option of letter grade or Pass/No Pass)
    36 hours lecture
    Advisory: Eligibility for AMLA 43W
    Enhances the ability of non-native speakers to listen effectively and speak formally. Emphasis is on note taking, outlining, organizing speeches, and verbal articulation of ideas.

  - **AMLA 24 — Idiomatic English**: 2 Units
    (May be taken for option of letter grade or Pass/No Pass)
    36 hours lecture
    Advisory: Eligibility for AMLA 42W
    Intermediate course in the study of idiomatic language, including common American idioms and proverbs, as used in everyday language situations.

  - **AMLA 31R — American Language Basic Reading**: 4 Units
    (May be taken for option of letter grade or Pass/No Pass)
    72 hours lecture
    Prerequisite: Satisfactory score on appropriate Reading Placement Test or successful completion of noncredit ESL Level 4
    Basic reading and vocabulary for non-native speakers.

  - **AMLA 32R — American Language Intermediate Reading**: 4 Units
    (May be taken for option of letter grade or Pass/No Pass)
    72 hours lecture
    Prerequisite: Successful completion of AMLA 31R, or satisfactory score on appropriate Reading Placement Test, or successful completion of noncredit ESL Level 5, 6, or VESL
    Intermediate reading and vocabulary for non-native speakers.

  - **AMLA 33R — American Language Advanced Reading**: 4 Units
    (May be taken for option of letter grade or Pass/No Pass)
    72 hours lecture
    Prerequisite: Successful completion of AMLA 32R or satisfactory score on appropriate Reading Placement Test
    Advanced reading and vocabulary for non-native speakers.

  - **AMLA 41W — American Language Basic Writing**: 4 Units
    (May be taken for option of letter grade or Pass/No Pass)
    72 hours lecture
    Prerequisite: Satisfactory score on the English Placement Test or successful completion of noncredit ESL Level 4
    Advisory: AMLA 31R taken previously or concurrently
    Basic grammar and writing for non-native speakers.

  - **AMLA 42W — American Language Intermediate Writing**: 4 Units
    (May be taken for option of letter grade or Pass/No Pass)
    72 hours lecture
    Prerequisite: Satisfactory score on the English Placement Test or successful completion of AMLA 41W or noncredit ESL Level 5 or 6 or VESL
    Advisory: AMLA 32R taken prior or concurrently
    Intermediate grammar and writing for non-native speakers.
### Course Descriptions

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Units</th>
<th>Overview</th>
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</thead>
<tbody>
<tr>
<td>AMLA 43W</td>
<td>American Language Advanced Writing</td>
<td>4 Units</td>
<td>Not Degree Applicable</td>
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<tr>
<td></td>
<td>(May be taken for option of letter grade or Pass/No Pass)</td>
<td>72 hours lecture</td>
<td>Prerequisite: Satisfactory score on the English Placement Test or successful completion of AMLA 42W</td>
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<tr>
<td>AMLA 56</td>
<td>American Language Nouns and Articles</td>
<td>1 Unit</td>
<td>Not Degree Applicable</td>
</tr>
<tr>
<td></td>
<td>(May be taken for option of letter grade or Pass/No Pass)</td>
<td>18 hours lecture</td>
<td>Concentrates on count and non-count nouns, article usage and other determiners for non-native learners of English. Practice in present, past, and future verb tense forms, meaning, and use in both spoken and written English, with special emphasis on using correct verb forms in writing.</td>
</tr>
<tr>
<td>AMLA 57</td>
<td>American Language Verb Review I</td>
<td>1 Unit</td>
<td>Not Degree Applicable</td>
</tr>
<tr>
<td></td>
<td>(May be taken for option of letter grade or Pass/No Pass)</td>
<td>18 hours lecture</td>
<td>Concentrates on verb tense, form, and use for non-native learners of English. Practice in present, past, and future verb tense forms, meaning, and use in both spoken and written English, with special emphasis on writing and speaking.</td>
</tr>
<tr>
<td>AMLA 58</td>
<td>American Language Verb Review II</td>
<td>1 Unit</td>
<td>Not Degree Applicable</td>
</tr>
<tr>
<td></td>
<td>(May be taken for option of letter grade or Pass/No Pass)</td>
<td>18 hours lecture</td>
<td>Advanced work on modals, passive voice, passive modals, and conditions for non-native English students. Exercises and writing practice will emphasize improved verb usage in writing.</td>
</tr>
<tr>
<td>AMLA 59</td>
<td>American Language Prepositions</td>
<td>1 Unit</td>
<td>Not Degree Applicable</td>
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<tr>
<td></td>
<td>(May be taken for option of letter grade or Pass/No Pass)</td>
<td>18 hours lecture</td>
<td>Spoken and written practice in prepositions for non-native English students. Students will analyze prepositions and idiomatic expressions through reading and apply their knowledge to written work.</td>
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<tr>
<td>AMLA 60</td>
<td>American Language Verb Review III</td>
<td>1 Unit</td>
<td>Not Degree Applicable</td>
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<tr>
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<td>(May be taken for option of letter grade or Pass/No Pass)</td>
<td>18 hours lecture</td>
<td>Advanced work on gerunds, infinitives and participles for non-native English students. Exercises and writing practice will emphasize improved verb usage in writing.</td>
</tr>
<tr>
<td>AMLA 61</td>
<td>American Language Word Forms</td>
<td>1 Unit</td>
<td>Not Degree Applicable</td>
</tr>
<tr>
<td></td>
<td>(May be taken for option of letter grade or Pass/No Pass)</td>
<td>18 hours lecture</td>
<td>Spoken and written practice in noun, verb, adjective, and adverb word forms for non-native English students.</td>
</tr>
<tr>
<td>AMLA 62</td>
<td>American Language Structure</td>
<td>1 Unit</td>
<td>Not Degree Applicable</td>
</tr>
<tr>
<td></td>
<td>(May be taken for option of letter grade or Pass/No Pass)</td>
<td>18 hours lecture</td>
<td>Spoken and written practice in noun, verb, adjective, and adverb word forms for non-native English students.</td>
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<tr>
<td>ANAT 10A</td>
<td>Introductory Human Anatomy</td>
<td>4 Units</td>
<td>Degree Applicable, CSU, UC</td>
</tr>
<tr>
<td></td>
<td>54 hours lecture</td>
<td>54 hours lab</td>
<td>Prerequisite: ANAT 10A or ANAT 35</td>
</tr>
<tr>
<td>ANAT 10B</td>
<td>Introductory Human Physiology</td>
<td>4 Units</td>
<td>Degree Applicable, CSU, UC</td>
</tr>
<tr>
<td></td>
<td>54 hours lecture</td>
<td>54 hours lab</td>
<td>Prerequisite: CHEM 10 or CHEM 40</td>
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<tr>
<td>ANAT 35</td>
<td>Human Anatomy</td>
<td>5 Units</td>
<td>Degree Applicable, CSU, UC</td>
</tr>
<tr>
<td></td>
<td>54 hours lecture</td>
<td>108 hours lab</td>
<td>Prerequisite: BIOL 1 or BIOL 4 or BIOL 4H</td>
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<tr>
<td>ANAT 36</td>
<td>Human Physiology</td>
<td>5 Units</td>
<td>Degree Applicable, CSU, UC</td>
</tr>
<tr>
<td></td>
<td>54 hours lecture</td>
<td>108 hours lab</td>
<td>Prerequisite: ANAT 35 and CHEM 10 or CHEM 40</td>
</tr>
<tr>
<td>ANAT 40A</td>
<td>Human Prosection</td>
<td>2 Units</td>
<td>Degree Applicable, CSU</td>
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<tr>
<td></td>
<td>108 hours lab</td>
<td>Prerequisite: ANAT 35</td>
<td></td>
</tr>
<tr>
<td>ANAT 40B</td>
<td>Human Prosection</td>
<td>2 Units</td>
<td>Degree Applicable, CSU</td>
</tr>
<tr>
<td></td>
<td>108 hours lab</td>
<td>Prerequisite: ANAT 40A</td>
<td></td>
</tr>
<tr>
<td>ANTH 1</td>
<td>Biological Anthropology</td>
<td>3 Units</td>
<td>Degree Applicable, CSU, UC</td>
</tr>
<tr>
<td></td>
<td>54 hours lecture</td>
<td>Prerequisite: Eligibility for ENGL 68</td>
<td></td>
</tr>
<tr>
<td>ANTH 1H</td>
<td>Biological Anthropology - Honors</td>
<td>3 Units</td>
<td>Degree Applicable, CSU, UC</td>
</tr>
<tr>
<td></td>
<td>54 hours lecture</td>
<td>Prerequisite: Acceptance into the Honors Program</td>
<td></td>
</tr>
</tbody>
</table>

### Other Courses

- **ANTH 40A** — Human Prosection
- **ANTH 40B** — Human Prosection
- **AMLA 61** — American Language Word Forms
- **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  1 Unit
  Degree Applicable, CSU, UC
54 hours lab
Corequisite: ANTH 1 or ANTH 1H (May have been taken previously)
Scientific study of human evolution. Students will generate and test hypotheses using the techniques and materials of biological anthropology. Includes genetic observations and calculations, osteological techniques and measurements, and primate behavior observations. One field trip to a zoo for primate observation is required.

• ANTH 3 — Archaeology  3 Units
  Degree Applicable, CSU, UC
(May be taken for option of letter grade or Pass/No Pass)
54 hours lecture
Prerequisite: Eligibility for ENGL 1A
Advisory: READ 90
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 Applicable, CSU, UC
54 hours lecture
The anthropological approach to the study of human behavior from a cross cultural, comparative, and an evolutionary perspective. An exploration into the languages, economics, sociopolitical systems, religions, and world views of diverse world cultures. A technical presentation is stressed as this course is designed for Social Sciences majors.

• ANTH 22 — General Cultural Anthropology  3 Units
  Degree Applicable, CSU, UC
54 hours lecture
An introductory course to explore the nature of culture and how cultural anthropologists study cultural phenomena such as language, personality, subsistence, economics, social and political organization, marriage, kinship systems, religion, the arts, and culture change. A substantial amount of case material will be drawn from at least three of the following: African Americans, indigenous peoples of the United States, Asian Americans, Chicano/Latino Americans, and European Americans. This course may meet the cultural diversity requirement at transfer universities.

• ANTH 30 — The Native American  3 Units
  Degree Applicable, CSU, UC
54 hours lecture
Prerequisite: Eligibility for ENGL 1A
Advisory: Eligibility for READ 100
Prehistory and history of Native Americans. Overview of the classification system used to organize particular groups into culture areas related to adaptive strategies. Identification of world contributions and contemporary issues for modern Native Americans.

• ANTH 99 — Special Projects in Anthropology  2 Units
  Degree Applicable, CSU, UC
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.

• ARAB 1 — Elementary Arabic  4 Units
  Degree Applicable, CSU, UC
72 hours lecture
Intended for students with little or no previous exposure to Arabic. Begins to develop elementary reading, writing, and speaking skills in Modern Standard Arabic. Focuses on mastery of Arabic script, pronunciation, simple grammatical structures, and basic vocabulary, along with an introduction to Arab culture.

• ARAB 2 — Continuing Elementary Arabic  4 Units
  Degree Applicable, CSU, UC
72 hours lecture
Prerequisite: ARAB 1 or equivalent
Continues to develop elementary reading, writing, and speaking skills in Modern Standard Arabic. Emphasizes verbs, word patterns, and vocabulary building; introduces short authentic texts. Includes some exposure to Formal Spoken Arabic.

• ARCH 10 — Design I - Elements of Design  3 Units
  Degree Applicable, CSU, UC
36 hours lecture
71 hours lab
Fundamentals of design and design process. Elements include conceptualization, visualization, form making, presentation, expression, and site analysis of physical/contextual/cultural aspects of design and/or the urban environment. Portfolio will be produced.

• ARCH 11 — Architectural Drawing  3 Units
  Degree Applicable, CSU, UC
36 hours lecture
71 hours lab
Advisory: Eligibility for MATH 51
Architectural drawing techniques, including graphic standards, scales, orthographic, paraline, and perspective projections.

• ARCH 12 — Architectural Materials and Specifications 4 Units
  Degree Applicable, CSU
54 hours lecture
54 hours lab
Advisory: Eligibility for MATH 51
Building materials and specifications used in architecture and construction. Includes a lab component of common building material applications. Field trips are required.

• ARCH 13 — Architectural Illustration  3 Units
  Degree Applicable, CSU, UC
36 hours lecture
71 hours lab
Advisory: ARCH 11
Architectural and interior illustration including perspective drawing, sketching, shadows and entourage, and color application utilizing various media and development of project portfolio.

• ARCH 14 — Building and Zoning Codes  3 Units
  Degree Applicable, CSU
54 hours lecture
Advisory: ARCH 11
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.

• ARCH 15 — Architectural Working Drawings I  3 Units
  Degree Applicable, CSU
36 hours lecture
71 hours lab
Advisory: ARCH 11, ARCH 12, ARCH 14, and eligibility for MATH 51
Architectural working drawings and construction documents for light frame (Type V) construction, suitable for Building Department submittal. Portfolio will be produced.

• ARCH 16 — Basic CAD and Computer Application  4 Units
  Degree Applicable, 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).
ARCH 18 — Architectural CAD and BIM  3 Units
Degree Applicable, CSU
36 hours lecture
71 hours lab
Advisory: ARCH 11 or ARCH 16
3-D Computer Aided Design and Drafting (CAD) and Building Information Modeling (BIM) for architectural design and design development. Portfolio of 3-D building models and extracted 2-D drawings will be produced.

ARCH 21 — Design II - Architectural Design  3 Units
Degree Applicable, CSU, UC
36 hours lecture
71 hours lab
Advisory: ARCH 10 AND ARCH 11 AND ARCH 13
Second level architectural design studio with a focus on site analysis, design conceptualization, form making, program development and presentation. Emphasis is on critical thinking and problem solving integrated with the artistic design process. Investigations will stress symbolic expression, aesthetics, craftsmanship, technical skills, vocabulary and physical object making through the design of multi-family residential, institutional and cultural buildings. Field trips are required.

ARCH 23 — Architectural Presentations  3 Units
Degree Applicable, CSU, UC
36 hours lecture
72 hours lab
Advisory: ARCH 10, ARCH 11 taken prior
Analysis and preparation of architectural presentation projects, including schematic and final design, architectural models, oral presentation techniques, board layouts using hand-drawn and computer-aided techniques, and development of project portfolio.

ARCH 26 — Architectural CAD Working Drawings  3 Units
Degree Applicable
36 hours lecture
71 hours lab
Advisory: ARCH 15, ARCH 18 or equivalent experience
Architectural Computer Aided Design (CAD) for design development and working drawings. Portfolio of working drawing using Building Information Modeling (BIM) and CAD applications of integrated 3-D and 2-D BIM/CAD models will be produced.

ARCH 27 — Design III - Environmental Design  3 Units
Degree Applicable, CSU, UC
36 hours lecture
71 hours lab
Advisory: ARCH 21, ARCH 23 or equivalent experience
Application of theory and principles of environmental design as applied to architecture, landscape architecture, urban design, urban planning and (civil) engineering. Portfolio will be produced.

ARCH 28 — Architectural CAD Illustration and Animation  3 Units
Degree Applicable, CSU
36 hours lecture
71 hours lab
Advisory: ARCH 18
Architectural CAD 3-D illustration, rendering and animation. Virtual walk-through and fly-through videos of interior and exterior 3-D models with photo-realistic materials and lighting will be produced.

ARCH 29 — Design IV - Advanced Project  3 Units
Degree Applicable, CSU
36 hours lecture
71 hours lab
Advisory: ARCH 23 and ARCH 27
Fourth level architectural design studio focusing on sustainability, energy efficiency and environmental conservation. Emphasis is on critical thinking and problem solving involving material selection, envelope design, advance space planning and the development of designs from complex building programs. Investigations will stress logical organization, craftsmanship, technical skills, vocabulary and physical object making through the design complex building types. Field trips are required.

ARCH 32 — World Architecture II  3 Units
Degree Applicable, CSU
54 hours lecture
71 hours lab
Advisory: ARCH 15, ARCH 18 or equivalent experience
Architectural Computer Aided Design (CAD) for design development and working drawings. Portfolio of working drawing using Building Information Modeling (BIM) and CAD applications of integrated 3-D and 2-D BIM/CAD models will be produced.

ARCH 31 — World Architecture I  3 Units
Degree Applicable, CSU, UC
54 hours lecture
Development of world architecture from pre-history to the Middle Ages. Influence of geography, religion, and socio-economic background on architecture from ancient Egypt, Europe through the Middle Ages, and classic civilizations of Asia and the Americas.

ARCH 32 — World Architecture II  3 Units
Degree Applicable, CSU, UC
54 hours lecture
Development of world architecture from the Renaissance to the present. Influence of environment, religion and socio-economic movements on modern architecture.

ARCH 89 — Architectural Work Experience  1 to 2 Units
Degree Applicable
(May be taken for Pass/No Pass only)
60 to 150 hours lab
Prerequisite: Compliance with work experience regulations as designated in the College Catalog
Provide actual on-the-job experience in architecture at 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.

ANIM 101A — Drawing - Gesture and Figure  3 Units
Degree Applicable, CSU
36 hours lecture
71 hours lab
Contemporary and traditional approaches to sketching objects and the human figure using drawing techniques for rapid visualization. Emphasizes and develops perceptual and technical skills for capturing basic visual mechanics of motion and gesture.

ANIM 101B — Figure Gesture - Design  3 Units
Degree Applicable
36 hours lecture
71 hours lab
Prerequisite: ANIM 101A (formerly ANIM 101)
Contemporary and traditional approaches to sketching the human figure using drawing techniques for rapid visualization. Emphasizes and develops elements of design for the purposes of visual communication and storytelling.

ANIM 101C — Figure Gesture - Design  3 Units
Degree Applicable
36 hours lecture
71 hours lab
Prerequisite: ANIM 101A
Contemporary and traditional approaches to sketching the human figure using drawing techniques for rapid visualization. Emphasizes and develops personal interpretation, individual expression, and media exploration.

ANIM 104 — Drawing Fundamentals  3 Units
Degree Applicable, CSU
36 hours lecture
71 hours lab
Emphasizes creative expression through the use of drawing media and techniques. Emphasis is placed on use of construction, light logic, atmospheric and linear perspective, and gesture directed toward animation. Includes basic drawing skills and methods of achieving compositional integrity through objective analysis and synthesis. May require off-campus assignments.

ANIM 101 — Drawing Fundamentals  3 Units
Degree Applicable, CSU
36 hours lecture
71 hours lab
Prerequisite: ANIM 101
Contemporary and traditional approaches to sketching the human figure using drawing techniques for rapid visualization. Emphasizes and develops personal interpretation, individual expression, and media exploration.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
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<tr>
<td>ANIM 107</td>
<td>Figure in Motion</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Degree Applicable</td>
<td></td>
</tr>
<tr>
<td></td>
<td>36 hours lecture</td>
<td></td>
</tr>
<tr>
<td></td>
<td>71 hours lab</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Prerequisite: ANIM 101A or ARTD 17A</td>
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<td>Drawing human figures in motion. Anatomical landmarks, proportion, light and shadow, line composition, figure-ground relationship, the interaction of form and content, and the expressive potential of the human figure will be explored.</td>
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<tr>
<td>ANIM 108</td>
<td>Principles of Animation</td>
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<td></td>
<td>Degree Applicable, CSU</td>
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<tr>
<td></td>
<td>36 hours lecture</td>
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<td></td>
<td>71 hours lab</td>
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<td></td>
<td>Principles of drawing for traditional animation concentrating on the mechanics of movement, timing, and emotion for the creation of expressive line drawings.</td>
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<tr>
<td>ANIM 109</td>
<td>Advanced Principles of Animation</td>
<td>3</td>
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<td></td>
<td>Degree Applicable</td>
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<tr>
<td></td>
<td>36 hours lecture</td>
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<td>71 hours lab</td>
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<td></td>
<td>Prerequisite: ANIM 108</td>
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<td></td>
<td>Advanced principles of animation including mechanics of motion, weighted movement, lip sync and expression applied to story, staging, and character development. Focus will be on the animated film process from script to storyboards, timing sheets, key posing, inbetweening and clean up through the completion of a final animation.</td>
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<tr>
<td>ANIM 110</td>
<td>— Animal Drawing</td>
<td>1.5</td>
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<td>Degree Applicable</td>
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<td></td>
<td>18 hours lecture</td>
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<td>36 hours lab</td>
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<tr>
<td></td>
<td>Prerequisite: ARTD 15A or ANIM 104</td>
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<tr>
<td></td>
<td>Explores traditional and contemporary approaches to sketching and drawing animals. Gesture, anatomical structure, proportion, line and action analysis will be explored. Requires several off-campus field trips.</td>
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<tr>
<td>ANIM 111A</td>
<td>— Animal Drawing</td>
<td>1.5</td>
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<td></td>
<td>Degree Applicable</td>
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<tr>
<td></td>
<td>18 hours lecture</td>
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<td></td>
<td>36 hours lab</td>
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<td></td>
<td>Prerequisite: ANIM 111A</td>
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<tr>
<td></td>
<td>Explores traditional and contemporary approaches to sketching animals using drawing techniques for rapid visualization. Emphasizes and develops elements of design for the purposes of visual communication and storytelling. Requires several off-campus field trips.</td>
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<tr>
<td>ANIM 111B</td>
<td>— Animal Drawing</td>
<td>1.5</td>
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<td></td>
<td>Degree Applicable</td>
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<tr>
<td></td>
<td>18 hours lecture</td>
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<td>36 hours lab</td>
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<td></td>
<td>Prerequisite: ANIM 111A</td>
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<tr>
<td></td>
<td>Contemporary and traditional approaches to sketching animals using drawing techniques for rapid visualization. Emphasizes and develops elements of design for the purposes of visual communication and storytelling. Requires several off-campus field trips.</td>
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<tr>
<td>ANIM 115</td>
<td>— Storyboarding</td>
<td>3</td>
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<td></td>
<td>Degree Applicable, CSU</td>
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<td>36 hours lecture</td>
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<td>71 hours lab</td>
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<td></td>
<td>Prerequisite: ARTD 15A or ANIM 104</td>
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<tr>
<td></td>
<td>Storyboarding with emphasis on storytelling, cinematography, drawing, and notation as it relates to the animation industry.</td>
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<tr>
<td>ANIM 116</td>
<td>— Character Development</td>
<td>1.5</td>
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<td>Degree Applicable</td>
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<td></td>
<td>18 hours lecture</td>
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<td>36 hours lab</td>
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<td></td>
<td>Prerequisite: ARTD 15A or ANIM 104</td>
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<td></td>
<td>Drawing and development of characters for animation. Observation of details for character attitude, personality, movement, posing, dialogue, mouth positions, body language, and consistent drawing techniques for model sheets will be explored.</td>
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<tr>
<td>ANIM 117</td>
<td>— Animation Background Layout</td>
<td>3</td>
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<td></td>
<td>Degree Applicable, CSU</td>
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<tr>
<td></td>
<td>36 hours lecture</td>
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<td></td>
<td>71 hours lab</td>
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<td></td>
<td>Prerequisite: ANIM 115 or ARTD 16</td>
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<tr>
<td></td>
<td>Drawing and painting techniques as applied to layout and background design.</td>
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<tr>
<td>ANIM 120</td>
<td>— Script Development for Animation</td>
<td>3</td>
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<td></td>
<td>Degree Applicable</td>
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<tr>
<td></td>
<td>54 hours lecture</td>
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<td></td>
<td>Creative and problem solving processes as applied to story and script development. Scripts, screens, live action and animated film, and the practical application of story adaptation to screenplay.</td>
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<tr>
<td>ANIM 121</td>
<td>— Nature and History of Animation</td>
<td>3</td>
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<td></td>
<td>Degree Applicable, CSU</td>
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<td></td>
<td>54 hours lecture</td>
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<td></td>
<td>History of animated film and its relationship to the disciplines of art, communication, theater, music, literature, film making, philosophy, and world history. Includes early pioneers through current visionaries, social influences that affected the development of animated film and the social impact of the animated product, and the differences between live action film and inanimate, nonliving objects in a variety of forms such as two-dimensional, clay, or computer created.</td>
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<tr>
<td>ANIM 130</td>
<td>— Introduction to 3-D Computer Animation</td>
<td>3</td>
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<td></td>
<td>Degree Applicable, CSU</td>
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<tr>
<td></td>
<td>36 hours lecture</td>
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<td>71 hours lab</td>
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<tr>
<td></td>
<td>3-D animation covering modeling, lighting, and rendering using Maya software.</td>
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<tr>
<td>ANIM 131</td>
<td>— Introduction to Gaming</td>
<td>3</td>
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<td></td>
<td>Degree Applicable, CSU</td>
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<td>(May be taken for option of letter grade or Pass/No Pass)</td>
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<td>36 hours lecture</td>
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<td>71 hours lab</td>
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<tr>
<td></td>
<td>The field of game design including the principles, tools, and strategies for designing various types of games.</td>
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<tr>
<td>ANIM 132</td>
<td>— Modeling, Texture Mapping and Lighting</td>
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<td>Degree Applicable</td>
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<td></td>
<td>36 hours lecture</td>
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<td>71 hours lab</td>
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<td>Prerequisite: ANIM 130</td>
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<td></td>
<td>3D polygon modeling and UV polygon texture mapping used in computer graphic games, TV programs or film. Includes camera animation with stage and environmental scenes featuring fly-through, lighting setup and lighting visual effects. Software used is Autodesk Maya.</td>
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<tr>
<td>ANIM 133</td>
<td>— Introduction to 3-D Computer Animation</td>
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<td>Degree Applicable</td>
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<td></td>
<td>36 hours lecture</td>
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<td>71 hours lab</td>
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<td>Prerequisite: ANIM 130</td>
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<tr>
<td></td>
<td>3D digital environment including designing, modeling, texturing, and lighting for computer graphic games, television programs, or films. Includes environment levels for computer graphic games.</td>
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<tr>
<td>ANIM 134</td>
<td>— Introduction to 3-D Computer Animation</td>
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<td>Degree Applicable</td>
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<tr>
<td></td>
<td>36 hours lecture</td>
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<td>71 hours lab</td>
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<td>Prerequisite: ANIM 130</td>
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<tr>
<td></td>
<td>3D digital environment including designing, modeling, texturing, and lighting for computer graphic games, television programs, or films. Includes environment levels for computer graphic games.</td>
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<tr>
<td>ANIM 135</td>
<td>— Introduction to 3-D Computer Animation</td>
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<td>Degree Applicable</td>
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<tr>
<td></td>
<td>36 hours lecture</td>
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<td>71 hours lab</td>
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<td>Prerequisite: ANIM 130</td>
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<td></td>
<td>3D digital environment including designing, modeling, texturing, and lighting for computer graphic games, television programs, or films. Includes environment levels for computer graphic games.</td>
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<tr>
<td>ANIM 136</td>
<td>— Animation Environment and Level Design</td>
<td>3</td>
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<td></td>
<td>Degree Applicable</td>
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<tr>
<td></td>
<td>36 hours lecture</td>
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<td>71 hours lab</td>
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<td></td>
<td>Prerequisite: ANIM 130 and ANIM 132</td>
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<tr>
<td></td>
<td>3D digital environment including designing, modeling, texturing, and lighting for computer graphic games, television programs, or films. Includes environment levels for computer graphic games.</td>
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<tr>
<td>ANIM 137A</td>
<td>— Work Experience in New Digital Media</td>
<td>1 to 3</td>
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<td>Degree Applicable</td>
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<td>(May be taken for Pass/No Pass only)</td>
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<td>75 to 225 hours lab</td>
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<td>Prerequisite: Compliance with Work Experience regulations as designated in the College Catalog AND ANIM 132</td>
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<td></td>
<td>This course provides college credit and instructional guidance in conjunction with work experience in areas of New Digital Media at an approved work site 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. Instructor approval required.</td>
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<tr>
<td>ANIM 138</td>
<td>— 2D Game Level Design</td>
<td>3</td>
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<td>Degree Applicable</td>
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<td></td>
<td>36 hours lecture</td>
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<td></td>
<td>71 hours lab</td>
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<td></td>
<td>Prerequisite: ANIM 131</td>
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<td></td>
<td>Design of game levels based upon storytelling, platform and theme. Includes asset development of background, user interface, and character art.</td>
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</tbody>
</table>

Course Descriptions
ANIM 145 — Advanced 3-D Modeling  3 Units
36 hours lecture
71 hours lab
Prerequisite: ANIM 130
Advisory: ANIM 132
3-D modeling with a focus on designing and rigging a character for animation. Includes UV texture mapping, character control for animation, and facial expressions using blend-shape animation.

ANIM 146 — Advanced 3-D Animation  3 Units
36 hours lecture
71 hours lab
Prerequisite: ANIM 130
Advisory: ANIM 132
3D character animation principles and procedures used in computer graphics, games, film, and television. Includes walk, run, and action sequences for rigged characters using graph editor.

ANIM 148 — Demo-Reel  3 Units
36 hours lecture
71 hours lab
Production of a demo reel representative of interest, strength and skills for entry into animation fields, professional schools or baccalaureate institutions.

ANIM 149 — 3-D Character Rigging  3 Units
36 hours lecture
71 hours lab
Prerequisite: ANIM 145
The principles, techniques and processes of 3D character rigging. Character Rigging is the industry technique of setting up controls on a 3D mesh so that it is animatable. The principles, techniques and processes of 3D character rigging as done primarily for computer games and movie industry will be explored. Building a set of animatable character rigs built using forward kinematics, inverse kinematics, constraints, expressions, blend shapes among other techniques. No prior knowledge of rigging is necessary for this class.

ANIM 151 — Game Prototype Production  3 Units
36 hours lecture
71 hours lab
Prerequisite: ANIM 131
Creation of game prototypes based upon specific game features and mechanics. Includes the four main game production cycles of: Designing the game, building the art, technical production, and marketing of the game.

ANIM 167 — Visual Development  3 Units
36 hours lecture
71 hours lab
Prerequisite: ARTC 163 or (ANIM 101A AND ARTD 16)
Development of visual concepts and storytelling for entertainment illustration through use of value, design, color and composition as symbolic tools for communication. Students cannot receive credit for both ARTC 167 and ANIM 167.

ANIM 172 — Motion Graphics, Compositing and Visual Effects  3 Units
36 hours lecture
71 hours lab
Prerequisite: ARTC 70 or ARTC 100
Elements of motion graphics: design, typography, animation, compositing, visual effects, and editing in a production environment (i.e. TV, Film, DVD, or Web) using industry standard software.

ANIM 175 — Web Animation With Flash  3 Units
36 hours lecture
71 hours lab
Prerequisite: ARTC 70 or ARTC 100
Principles of animation using Adobe Flash for web and multimedia.

ANIM 176 — Visual Development  3 Units
36 hours lecture
71 hours lab
Prerequisite: ARTC 163 or (ANIM 101A AND ARTD 16)
Development of visual concepts and storytelling for entertainment illustration through use of value, design, color and composition as symbolic tools for communication. Students cannot receive credit for both ARTC 167 and ANIM 167.

ARTG 20 — Art, Artists and Society  3 Units
36 hours lecture
71 hours lab
Prerequisite: ARTG 20 and Eligibility for ENGL 68
Concepts and hands-on applications of curatorial processes, management skills, and gallery operations. The professional side of the arts with emphasis on contemporary art, theories and media will be explored. Field trips required.

ARTG 21A — Introduction to Exhibition Production  3 Units
36 hours lecture
71 hours lab
Prerequisite: ARTG 21A
Exhibition planning, research, operation and management. Art as a profession, with emphasis on historical and contemporary terms, theories, movements and media in the context of an art exhibition production. Field trips required.

ARTG 22A — Exhibition Design and Art Gallery Operation Work Experience  1 to 3 Units
75 to 225 hours lab
Prerequisite: ARTG 21A
Provides on-the-job experience in exhibition design and art gallery operation at an approved work site related to the 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.
ARTC 100 — Graphic Design I  3 Units  
Degree Applicable, CSU  
(May be taken for option of letter grade or Pass/No Pass)  
36 hours lecture  
71 hours lab  
Prerequisite: ARTD 15A or ANIM 104  
Contemporary graphic design for the commercial arts industry.  
Covers technology, creativity, design, and production. Focuses on using Adobe Photoshop to produce effective commercial art. Additional exposure to Adobe Illustrator and other professional production tools.

ARTC 120 — Graphic Design II  3 Units  
Degree Applicable, CSU  
(May be taken for option of letter grade or Pass/No Pass)  
36 hours lecture  
71 hours lab  
Prerequisite: ARTC 70 or ARTC 100  
Graphic design concepts, theories, and strategies for the design and layout of printed commercial art. Covers typical printed products including advertisements, flyers, brochures, posters, newsletters, books, and catalogs. Focuses on using Adobe InDesign with additional exposure to Photoshop and Illustrator.

ARTC 140 — Graphic Design III  3 Units  
Degree Applicable  
36 hours lecture  
71 hours lab  
Prerequisite: ARTC 70 or ARTC 100  
Digital illustration, design, skills, and concepts working primarily with vector art. Focuses on using Adobe Illustrator as the primary development tool.

ARTC 160 — Typography  3 Units  
Degree Applicable, CSU  
36 hours lecture  
71 hours lab  
Prerequisite: ARTC 100 or ARTC 70  
Design and use of basic letterforms, type families, characteristics, history, and principles of typography in graphic design. Traditional and digital skills for the art of typeface design, typographic layout, expressive typography, and conceptual thinking.

ARTC 145 — Illustration  3 Units  
Degree Applicable  
36 hours lecture  
71 hours lab  
Prerequisite: ARTC 100  
Illustration concepts, theories, and strategies for the design and layout of printed commercial art. Covers typical printed products including advertisements, flyers, brochures, posters, newsletters, books, and catalogs. Focuses on using Adobe InDesign with additional exposure to Photoshop and Illustrator.

ARTC 146 — Visual Development  3 Units  
Degree Applicable, CSU  
36 hours lecture  
71 hours lab  
Prerequisite: ARTC 163 or (ANIM 101A AND ARTD 16)  
Development of visual concepts and storytelling for entertainment illustration through use of value, design, color and composition as symbolic tools for communication. Students cannot receive credit for both ARTC 167 and ANIM 167.

ARTC 150 — Multimedia Design  3 Units  
Degree Applicable, CSU  
36 hours lecture  
71 hours lab  
Prerequisite: ARTC 200  
Multimedia design and development using a variety of professional software and tools. Focus is on the web as the primary, although not exclusive, delivery channel for multimedia. Covers technical skills including intermediate web design, basic video editing, basic sound editing, and basic animation. Covers creative and conceptual skills including interface design, clarity of communication, and user experience.

ARTC 167 — Conceptual Illustration  3 Units  
Degree Applicable  
36 hours lecture  
71 hours lab  
Prerequisite: ARTC 163 and (ARTD 25A or ARTC 165)  
Advisory: ANIM 101A  
Development of visual concepts and vocabulary to create unique and provocative editorial illustration interpretations based on social, cultural, and political issues. Exploration of personal style and media with emphasis on contemporary art trends.
COURSE DESCRIPTIONS

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
<th>Prerequisites</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>ARTS 22</td>
<td>Design: Three-Dimensional</td>
<td>3</td>
<td>Eligibility for ENGL 68</td>
<td>Develops perception and enhances decision making within the three-dimensional world. Emphasis is placed on concept development and artistic expression utilizing principles and elements of three-dimensional design as well as practical experiments with various media.</td>
</tr>
<tr>
<td>ARTS 30A</td>
<td>Ceramics: Beginning I</td>
<td>3</td>
<td>ARTS 30A</td>
<td>36 hours lecture 71 hours lab Clay, glazes and firing through lecture and projects in hand building and on the wheel. Emphasis on developing skills, vocabulary, analysis of form, function and aesthetics through projects, oral and written criticism. Field trip required.</td>
</tr>
<tr>
<td>ARTS 31</td>
<td>Ceramics: Advanced Studio</td>
<td>2</td>
<td>ARTS 30B</td>
<td>36 hours lecture 71 hours lab Prerequisite: ARTS 30A. Advanced study of ceramics with emphasis on integrating form and surface with content and developing a personal style. Loading, firing and unloading kilns included. Field trips required.</td>
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<tr>
<td>ARTS 33</td>
<td>Ceramics: Hand Construction</td>
<td>3</td>
<td>ARTS 33</td>
<td>36 hours lecture 71 hours lab Clay, glazes and firing through projects that are hand built. Emphasis on developing skills, vocabulary and analysis of form, function, and craftsmanship through projects, discussion, oral and written criticism. Field trip required.</td>
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<tr>
<td>ARTS 34</td>
<td>The Sculptural Vessel</td>
<td>3</td>
<td>ARTS 34</td>
<td>18 hours lecture 108 hours lab Prerequisite: ARTS 30A. Advanced study of the ceramic vessel through the integration of technique, form and content. Field trips required.</td>
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<tr>
<td>ARTS 40A</td>
<td>Sculpture: Beginning</td>
<td>3</td>
<td>ARTS 40A</td>
<td>36 hours lecture 71 hours lab Prerequisite: ARTS 40A. Traditional and contemporary approaches to sculpture. Principles of sculptural design, concept development, technique and materials as an integral part of creative expression.</td>
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<tr>
<td>ARTS 40B</td>
<td>Sculpture: Intermediate</td>
<td>3</td>
<td>ARTS 40B</td>
<td>36 hours lecture 71 hours lab Prerequisite: ARTS 40A. Sculpture projects in subtractive, additive and manipulative approaches.</td>
</tr>
<tr>
<td>ARTS 40C</td>
<td>Sculpture: Carving</td>
<td>3</td>
<td>ARTS 40C</td>
<td>36 hours lecture 71 hours lab Prerequisite: ARTS 40A. Advanced projects in stone or wood carving offering the opportunity to further explore carving using hand, power and pneumatic tools. Emphasis is on individual interpretation.</td>
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<tr>
<td>ARTS 41A</td>
<td>Sculpture: Life</td>
<td>3</td>
<td>ARTS 41A</td>
<td>36 hours lecture 71 hours lab Prerequisite: ARTS 41A. Modeling from the human figure with emphasis on composition, gesture, motion and human anatomy as it informs sculptural form. Development of perceptual and technical skills in clay modeling from the human figure.</td>
</tr>
<tr>
<td>ARTS 41B</td>
<td>Sculpture: Intermediate Life</td>
<td>3</td>
<td>ARTS 41B</td>
<td>36 hours lecture 71 hours lab Prerequisite: ARTS 41A. Sculptural study of the human figure with emphasis on artistic development and stylistic exploration of human anatomy using materials and techniques suitable for the human form.</td>
</tr>
<tr>
<td>ARTS 42</td>
<td>Sculpture: Mold Making</td>
<td>3</td>
<td>ARTS 42</td>
<td>36 hours lecture 71 hours lab Prerequisite: ARTS 41A. Construction and use of flexible and plaster molds.</td>
</tr>
</tbody>
</table>
ARTS 46A — Sculpture: Special Effects Makeup 3 Units
Degree Applicable
(May be taken for option of letter grade or Pass/No Pass)
36 hours lecture
71 hours lab
Prerequisite: ARTS 46A
Sculpture special effects modeling, molding and casting techniques and materials applied to create appliances for the full human figure.

ARTS 46B — Sculpture: Special Effects Makeup 3 Units
Degree Applicable
(May be taken for option of letter grade or Pass/No Pass)
36 hours lecture
71 hours lab
Prerequisite: ARTS 46A
Sculpture special effects modeling, molding and casting techniques and materials applied to create appliances for the full human head, torso or mouth.

ARTS 99 — Sculpture Special Studies 2 Units
Degree Applicable
107 hours lab
Prerequisite: ARTS 22 or ARTS 40A or ARTS 41A
Extended sculpture experiences supplementary to those available in sculpture courses. Allows the student to pursue more advanced and complex sculpture projects with emphasis on the development of an individual creative direction. Content of each course and the methods of study vary from semester to semester.

ARTD 15A — Drawing: Beginning 3 Units
Degree Applicable, CSU, UC
36 hours lecture
71 hours lab
Prerequisite: ARTD 15A or ANIM 104
Linear perspective drawing techniques for artists and illustrators.

ARTD 17A — Drawing: Life 3 Units
Degree Applicable, CSU, UC
36 hours lecture
71 hours lab
Prerequisite: ARTD 15A or ANIM 104
Contemporary and traditional approaches to 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-Advanced 3 Units
Degree Applicable, CSU, UC
36 hours lecture
71 hours lab
Prerequisite: ARTD 17A
Contemporary and traditional approaches to drawing the human figure. Anatomy, proportion, line, light and shadow, composition, personal style and the expressive potential of the human figure will be explored.

ARTD 19A — Figure Painting 3 Units
Degree Applicable
36 hours lecture
71 hours lab
Prerequisite: ARTD 17A
Painting the draped and nude figure with emphasis on observation and accurate representation. Through poses of various lengths, students will learn to depict the human figure using light logic, color palettes, compositional devices, and painting techniques.

ARTD 20 — Design: Two-Dimensional 3 Units
Degree Applicable, CSU, UC
36 hours lecture
71 hours lab
Prerequisite: Eligibility for ENGL 68
Two-dimensional composition in achromatic value and color using the elements and principles of art and design. Emphasis on vocabulary, theory, and analysis of the formal elements and principles as they apply to studio projects in design for all disciplines of the arts. Off-campus assignments may be required.

ARTD 21 — Design: Color and Composition 3 Units
Degree Applicable, CSU, UC
36 hours lecture
71 hours lab
Prerequisite: ARTD 20
Color theory and relationships of pigment and light. Emphasis on color harmonies, color matching, the effects of light, color perception and expression in their application to design and composition as used in all disciplines of the arts.

ARTD 23A — Drawing: Head and Hands 1.5 Units
Degree Applicable, CSU, UC
18 hours lecture
36 hours lab
Prerequisite: ARTD 15A or ANIM 104
Contemporary and traditional approaches to constructing images of the human head and hands. Anatomy, proportion, light logic, composition, expression and the interaction of form and content.

ARTD 23B — Drawing: Advanced Heads and Hands 1.5 Units
Degree Applicable, CSU, UC
18 hours lecture
36 hours lab
Prerequisite: ARTD 23A
Explores contemporary and traditional approaches to drawing the human head and hands. Emphasizes and develops techniques for rendering as well as capturing a likeness.

ARTD 23C — Drawing: Expressive Heads and Hands 1.5 Units
Degree Applicable, CSU, UC
18 hours lecture
36 hours lab
Prerequisite: ARTD 23A
Explores contemporary and traditional approaches to sketching the human head and hands. Emphasis is placed on personal interpretation, individual expression, and media exploration.

ARTD 25A — Beginning Painting I 3 Units
Degree Applicable, CSU, UC
36 hours lecture
71 hours lab
Prerequisite: ARTD 25A
Development of basic paint applications in various styles and subjects focusing on the formal elements of composition, light logic, and color.

ARTD 25B — Beginning Painting II 3 Units
Degree Applicable, CSU, UC
36 hours lecture
71 hours lab
Prerequisite: ARTD 25A
Creation of large paintings through various styles including mixed media. Includes conceptualization and communication of ideas and solving compositional and technical painting problems with a variety of materials.
Course Descriptions

**ARTD 26A — Introduction to Printmaking** 3 Units
Degree Applicable, CSU, UC
36 hours lecture
71 hours lab
Prerequisite: ARTD 25B
Creation of large paintings focusing on conceptual issues and art historical influences. Conceptualization of work is done by responding to current and past art movements and popular culture in order to create unique artworks.

**ARTD 26B — Intermediate Painting II** 3 Units
Degree Applicable, CSU, UC
36 hours lecture
71 hours lab
Prerequisite: ARTD 26A
Development of a personal style focusing on conceptual issues and art historical influences. Students will conceptualize their work by responding to current and past art movements and popular culture in order to create unique artworks.

**ARTD 27 — Printing: Watercolor** 3 Units
Degree Applicable, CSU, UC
(May be taken for option of letter grade or Pass/No Pass)
36 hours lecture
71 hours lab
Prerequisite: ARTD 15A OR ARTD 20 OR ARTD 25A
Watercolor techniques as they relate to compositional and technical processes in painting. Emphasis is placed upon painting skills as related to transparent watercolor methods as well as exploration into opaque and mixed-media approaches. Off-campus assignments may be required.

**ARTD 43A — Introduction to Printmaking** 3 Units
Degree Applicable, CSU, UC
36 hours lecture
71 hours lab
Creative techniques in fine art printmaking using relief and intaglio processes. Emphasis is on developing skills, vocabulary and analysis of its aesthetics, historical context, cultural traditions and craftsmanship through projects, discussion, and oral and written criticism. Field trips may be required.

**ARTD 43B — Intermediate Printmaking in Intaglio/Relief** 3 Units
Degree Applicable, CSU, UC
(May be taken for option of letter grade or Pass/No Pass)
36 hours lecture
71 hours lab
Prerequisite: ARTD 43A
Creation of complex editioned color prints in relief and intaglio printmaking from multiple matrices. Focus is on color registration, project collaboration, and learning how to combine different printing techniques in order to realize personal artistic expression. Field trips may be required.

**ARTD 44A — Printmaking: Introduction to Lithography I** 3 Units
Degree Applicable, CSU, UC
36 hours lecture
71 hours lab
Creative techniques in planographic printmaking using lithography. Emphasis is on skill development, vocabulary expansion, and critical analysis of aesthetics, historical context, and craftsmanship through projects, discussion, and oral and written criticism. Field trips may be required.

**ARTD 44B — Printmaking: Intermediate Lithography** 3 Units
Degree Applicable, CSU, UC
(May be taken for option of letter grade or Pass/No Pass)
36 hours lecture
71 hours lab
Prerequisite: ARTD 44A
Single and multi-color composition in lithographic printmaking. Focus is on techniques in stone lithography, color registration, and composition issues. Field trips may be required.

**ARTD 45A — Printmaking: Introduction to Screenprinting** 3 Units
Degree Applicable, CSU, UC
36 hours lecture
71 hours lab
Creative techniques in fine art screenprinting printmaking. Emphasis is on developing skills, vocabulary and critical understanding of the different stencil methods used in serigraphy. Screenprinting’s aesthetics, historical context and role in contemporary society are examined through projects, discussion of craftsmanship and content by oral and written discussion and criticism. Field trips may be required.

**ARTD 45B — Printmaking: Intermediate Screenprinting** 3 Units
Degree Applicable, CSU, UC
(May be taken for option of letter grade or Pass/No Pass)
36 hours lecture
71 hours lab
Prerequisite: ARTD 45A
Complex multi-color registration in screenprinting. Emphasis on registration of colors, exploration of printing on a variety of substrates, and integration of social and political issues in print design. Field trips may be required.

**ARTD 46A — Printmaking: Introduction to Monotype** 3 Units
Degree Applicable, CSU, UC
36 hours lecture
71 hours lab
Painterly printmaking with a focus on monotype, monoprint, and collography printing. Field trips may be required.

**ARTD 46B — Intermediate Painterly Printmaking** 3 Units
Degree Applicable, CSU, UC
(May be taken for option of letter grade or Pass/No Pass)
36 hours lecture
71 hours lab
Prerequisite: ARTD 46A
Painterly printmaking techniques such as viscosity etchings and the complexities of simultaneous relief and intaglio printing inherent in collography. Emphasis on achieving personal artistic expression. Field trips may be required.

**ARTD 47A — Printmaking: Photo and Alternative Processes** 3 Units
Degree Applicable, CSU, UC
108 hours lab
Prerequisite: ARTD 17A, ANIM 101A, or ARTD 23A
Specialized studies exploring advanced and complex figure drawing projects with emphasis on the development of an individual creative direction. Content of each course and the methods of study vary from semester to semester.

**ARTD 99 — Figure Drawing Special Studies** 2 Units
Degree Applicable
108 hours lab
Prerequisite: ARTD 17A, ANIM 101A, or ARTD 23A
Specialized studies exploring advanced and complex figure drawing projects with emphasis on the development of an individual creative direction. Content of each course and the methods of study vary from semester to semester.

**AHIS 1 — Understanding the Visual Arts** 3 Units
Degree Applicable, CSU, UC
54 hours lecture
Prerequisite: Eligibility for ENGL 68
Fundamentals of visual art forms and the role art plays in various historical periods and cultures. Off-campus trips may be required. Students may not earn credit for both ARTB 1 and AHIS 1.

**AHIS 3 — History of Women and Gender in Art** 3 Units
Degree Applicable, CSU, UC
54 hours lecture
Prerequisite: Eligibility for ENGL 68
Roles of women and gender in cultural creation and production with a focus on the visual arts. A historical and global survey, covering the role of women artists in the history of art and the representation of gender in a variety of cultures and time periods. Field trips may be required.
Students may not receive credit for both AHIS 5 (formerly ARTA 5) and AHIS 5H. Off-campus assignments may be required.

**AHIS 6 — History of Modern Art**

54 hours lecture

Prerequisite: Eligibility for ENGL 68

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. Off-campus trips may be required.

**AHIS 6H — History of Modern Art - Honors**

54 hours lecture

Prerequisite: Acceptance into the Honors Program

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. Off-campus trips may be required.

**AHIS 7**

Banishing the concept of gender in a variety of cultures and time periods. Investigating the role of women artists in the history of art and 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. Off-campus trips may be required.

**AHIS 8**

History of Medieval Art and Architecture

54 hours lecture

Prerequisite: Eligibility for ENGL 68

Medieval art and architecture in Europe and the Mediterranean. Jewish, Christian, and Islamic arts will be studied in their cultural contexts.

**AHIS 9**

History of Asian Art and Architecture

54 hours lecture

Prerequisite: Eligibility for ENGL 68

Asian artistic traditions. Major monuments of painting, sculpture, architecture, and other visual art forms are studied within their religious and cultural contexts.

**AHIS 10**

History of Greek and Roman Art and Architecture

54 hours lecture

Advisory: Eligibility for ENGL 68

A critical history of Greek and Roman art and architecture before 500 CE 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**

- **AHIS 99 — Special Projects in Art History** 2 Units
  Degree Applicable, CSU, UC
  (May be taken for option of letter grade or Pass/No Pass)
  38 hours lecture
  Advisory: AHIS 1
  Offers selected students recognition for their academic interest and ability, and the opportunity to explore the discipline in greater depth. The content of this course and the methods of study vary and depend on the particular project under consideration.

- **ASTR 5 — Introduction to Astronomy** 3 Units
  Degree Applicable, CSU, UC
  54 hours lecture
  Prerequisite: Eligibility for ENGL 1A
  An introductory, 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 5H — Introduction to Astronomy - Honors** 3 Units
  Degree Applicable, CSU, UC
  54 hours lecture
  Prerequisite: Eligibility for ENGL 1A; Acceptance into the Honors Program
  An honors course designed to provide an enriched experience. An introductory, non-technical survey of the Universe. Fundamental concepts and facts of astronomy. Topics include the origin and evolution of planets, stars, and galaxies; results of space exploration and modern cosmology. Enroll in ASTR 5L to receive laboratory science credit. Field trips may be required. Students may not receive credit for both ASTR 5H and ASTR 5.

- **ASTR 5L — Astronomical Observing Laboratory** 1 Unit
  Degree Applicable, CSU, UC
  54 hours lab
  Corequisite: ASTR 5 or 5H OR 7 or 8 (May have been taken previously)
  Advisory: Math 51
  Practical experience in astronomy including use of telescopes and demonstrations in the college planetarium. Occasional evening observing sessions with the telescopes and other field trips are required.

- **ASTR 7 — Geology of the Solar System** 3 Units
  Degree Applicable, CSU, UC
  54 hours lecture
  Geological features and evolution in the solar system. Course surveys techniques used to study cratering, tectonic and volcanic activity, weathering, landsliding, erosion and faulting. Emphasis on solid surfaces other than Earth. Enroll in ASTR 5L to receive lab science credit. Field trips required.

- **ASTR 8 — Introduction to Stars, Galaxies, and the Universe** 3 Units
  Degree Applicable, CSU, UC
  54 hours lecture
  Survey of current astronomical models, structure and evolution of stars, galaxies, and the universe. Field trip(s) required. Enroll in ASTR 5L to receive lab science credit.

- **ASTR 99 — Special Projects in Astronomy** 2 Units
  Degree Applicable, CSU, UC
  (May be taken for option of letter grade or Pass/No Pass)
  36 hours lecture
  In order to offer students recognition for their academic interests and ability, and the opportunity to explore their disciplines to greater depth, the various departments from time to time offer Special Projects courses. The content of each course and the methods of study vary from semester to semester and depend on the particular project under consideration. Student must have instructor's authorization before enrolling in this class. Students who repeat this course will improve skills through further instruction and practice.

- **Biol 1 — General Biology** 4 Units
  Degree Applicable, CSU, UC
  54 hours lecture
  54 hours lab
  Prerequisite: Eligibility for ENGL 68
  Advisory: READ 90
  Major principles and concepts, including cellular biology, energy relationships, biological systems, heredity, evolution and ecology for non-science majors.

- **Biol 2 — Plant and Animal Biology** 4 Units
  Degree Applicable, CSU, UC
  54 hours lecture
  54 hours lab
  Prerequisite: BIOL 1 or BIOL 4, and MATH 71
  Organismal biology including concepts in systematics, evolution, plant and animal physiology, ecology, and biotic relationships. Field trips are required.

- **Biol 3 — Ecology and Field Biology** 4 Units
  Degree Applicable, CSU, UC
  54 hours lecture
  54 hours lab
  Advisory: Eligibility for ENGL 1A
  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 and/or hiking. Taking BIOL 3 prior to BIOL 6L is highly recommended.

- **Biol 4 — Biology for Majors** 4 Units
  Degree Applicable, CSU, UC
  71 hours lab
  Prerequisite: (CHEM 10 or CHEM 40) AND MATH 71
  Advisory: Eligibility for ENGL 1A
  Principles of biology required for advanced study, including cellular and molecular biology, bioenergetics, genetics, reproduction, evolution, biodiversity and ecology. General Biology for science majors. One hour discussion group per week. Field trips with extensive hiking required.

- **Biol 4H — Biology for Majors - Honors** 4 Units
  Degree Applicable, CSU, UC
  71 hours lab
  Prerequisite: Acceptance into the Honors Program; (CHEM 40 or CHEM 10) AND MATH 71
  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. Students may not receive credit for both BIOL 4 and BIOL 4H. Field trips with extensive hiking required.

- **Biol 5 — Contemporary Health Issues** 3 Units
  Degree Applicable, CSU, UC
  54 hours lecture
  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 on prevention of illness and injuries.

- **Biol 6 — Humans and the Environment** 3 Units
  Degree Applicable, CSU, UC
  54 hours lecture
  Prerequisite: Eligibility for ENGL 68
  Ecological concepts to aid understanding the Earth's environmental crisis and determining courses of action to correct the problem. Emphasis will be placed on specific problems of population, pollution, preservation of wildlife and wilderness, and open space. A historical appraisal of human attitudes toward the land and of the necessity of developing a new land ethic.

- **Biol 6L — Humans and the Environment Laboratory** 2 Units
  Degree Applicable, CSU, UC
  108 hours lab
  Corequisite: BIOL 6 (may have been taken previously)
  Investigates major principles and problems of humans and the environment in the field and in the biological science laboratory. Most laboratory meetings will be conducted at off-campus locations. Some trips will require significant amounts of walking. Course includes one weekend field trip. Taking BIOL 6 prior to BIOL 6L is highly recommended.
### BIOL 8 — Cell and Molecular Biology 4 Units
Degree Applicable, CSU, UC

54 hours lecture
54 hours lab
Prerequisite: BIOL 4 or BIOL 4H, and CHEM 50
Cell and molecular biology including eukaryotic cells, eukaryotic organelles, protein structure and functions; DNA and RNA structure and functions; protein synthesis; genome organization in viruses, prokaryotes and eukaryotes; gene cloning; protein and DNA technology and applications of genetic engineering.

### BIOL 13 — Human Reproduction, Development and Aging 3 Units
Degree Applicable, CSU, UC

54 hours lecture
Prerequisite: Eligibility for ENGL 68
Human Development, from conception to death. Conception, growth, maturation and aging are studied as a natural continuum, influenced by our biophysical and psychosocial environment. Includes developmental theories and scientific methods used to study development. Field trips to several off-campus sites are required.

### BIOL 15 — Human Sexuality 3 Units
Degree Applicable, CSU, UC

54 hours lecture
Prerequisite: Eligibility for ENGL 68
Surveys biological, behavioral, cultural and ethical aspects of human sexuality. Contains mature and sexually explicit content.

### BIOL 15H — Human Sexuality - Honors 3 Units
Degree Applicable, CSU, UC

54 hours lecture
Prerequisite: Acceptance into the Honors Program
Surveys biological, behavioral, cultural and ethical aspects of human sexuality. Contains mature and sexually explicit content. An honors course designed to provide an enriched experience. Students may not receive credit for both BIOL 15 and BIOL 15H.

### BIOL 17 — Neurobiology and Behavior 3 Units
Degree Applicable, CSU, UC

54 hours lecture
An integrated analysis of the biological, ecological and evolutionary bases of animal 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.

### BIOL 20 — Marine Biology 3 Units
Degree Applicable, CSU, UC

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.

### BIOL 21 — Marine Biology Laboratory 1 Unit
Degree Applicable, CSU, UC

54 hours lab
Corequisite: BIOL 20 (may have been taken previously)
An introduction to the field and laboratory aspects of the marine environment. Emphasizes the structure and functional biology of marine invertebrates and vertebrates, ecology of intertidal organisms and ecology of estuaries. Field trips required.

### BIOL 24 — Introduction to Public Health 3 Units
Degree Applicable, CSU, UC

54 hours lecture
Prerequisite: Eligibility for ENGL 68
Public health concepts and practice by examining the philosophy, purpose, history, organization, function, tools, activities and outcomes of public health practice at the global, national, state, and community levels. Instruction prepares students to identify and assess important national and international problems and ethical issues facing public health today.

### BIOL 25 — Conservation Biology 3 Units
Degree Applicable, CSU

54 hours lecture
Prerequisite: Eligibility for ENGL 1A
Concepts of conservation biology for natural resources, including biogeography, biodiversity and extinction, environmental law, public lands, and conservation organizations. Emphasis on strategies important to addressing biological conservation and sustainable management of natural and managed ecosystems. A field trip is required.

### BIOL 34 — Fundamentals of Genetics 3 Units
Degree Applicable, CSU, UC

54 hours lecture
Prerequisite: BIOL 4 or BIOL 4H
Explores theory and applications of genetics. Major topics include Mendelian and molecular genetics, mechanisms of inheritance, gene expression, linkage and chromosome mapping, mutations and evolution, population genetics, and ethical and moral implications of DNA technology.

### BIOL 34L — Fundamentals of Genetics Lab 1 Unit
Degree Applicable, CSU, UC

54 hours lab Corequisite: BIOL 34 (May have been taken previously)
Experiments and problem solving in genetics including Mendelian Genetics, linkage and recombination, cell division, mutation, molecular genetics including use of PCR and electrophoresis, population genetics, and bioinformatics.

### BIOL 50 — Biology Basic Skills 5 Unit
Not Degree Applicable

May be taken for Pass/No Pass only
9 hours lecture
Basic skills needed for students to succeed in biological science classes. Topics include a contrast of the academic demands of science to non-science disciplines, preparation for biological laboratory experiences as well as lectures, development of personal study plan to manage the large volume of information, interpretation of biological graphs and diagrams, introduction to common Latin and Greek words to build vocabulary, use of memorization techniques, application of test-taking strategies for biological exams, especially lab practicals, and analysis of test results. These techniques and strategies will be discussed using biological concepts and vocabularies as examples. Recommended to be taken concurrently with any biological science class.

### BIOL 99A — Special Projects in Biology 1 to 2 Units
Degree Applicable, CSU

18 to 36 hours lecture
In order to offer students recognition for their academic interests and ability and the opportunity to explore their disciplines to greater depth, the various departments from time to time offer Special Projects courses. The content of each course and the methods of study vary from semester to semester and depend on the particular project under consideration. Students must have instructor’s authorization before enrolling in this course.

### BTNY 3 — Plant Structures, Functions, and Diversity 5 Units
Degree Applicable, CSU, UC

54 hours lecture
108 hours lab
Advisory: BIOL 1 or BIOL 4 and eligibility for ENGL 1A
Structures, functions, and diversity of plants, fungi, and algae. Includes 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.
### Course Descriptions

#### BUSINESS: ACCOUNTING

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Degree Applicability</th>
<th>Prerequisites</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUSA 7</td>
<td>Principles of Accounting - Financial</td>
<td>5</td>
<td>Degree Applicable, CSU, UC</td>
<td>90 hours lecture. Prerequisite: BUSA 11 or eligibility for MATH 51. Advisory: Eligibility for ENGL 1A. Financial accounting required of Business Administration and Accounting majors. Defines financial accounting and its relevance to business decision makers, accounting concepts and techniques, analysis and recording of financial transactions, and preparation, analysis and interpretation of financial statements focusing on application of generally accepted accounting practices. Includes asset, liability, and equity valuation, revenue and expense recognition, cash flow, internal controls, ethics, and financial statement analysis. General Ledger Accounting Software program is integrated throughout and used to complete various homework assignments.</td>
</tr>
<tr>
<td>BUSA 8</td>
<td>Principles of Accounting - Managerial</td>
<td>5</td>
<td>Degree Applicable, CSU, UC</td>
<td>90 hours lecture. Prerequisite: BUSA 7. Managerial accounting concepts and principles. Includes the role of managerial accounting, cost management concepts, cost behavior and relevant costs, job order and process costing, cost-volume-profit analysis, absorption and variable costing, profit planning and budgeting, standard costing and flexible budgeting, responsibility accounting and segment reporting, capital budgeting decisions, activity based costing, and cost management for just in time environments. Excel spreadsheet software is used to solve accounting problems or decision making in business.</td>
</tr>
<tr>
<td>BUSA 11</td>
<td>Fundamentals of Accounting</td>
<td>3</td>
<td>Degree Applicable</td>
<td>54 hours lecture. Prerequisite: BUSA 68 or eligibility for MATH 50. Accounting vocabulary and theory, equations to solve word problems, simple and compound interest, present value, consumer and business credit, mortgages, financial statements and ratios, inventory, depreciation, business taxes, investments.</td>
</tr>
<tr>
<td>BUSA 70</td>
<td>Payroll and Tax Accounting</td>
<td>3</td>
<td>Degree Applicable</td>
<td>54 hours lecture. Prerequisite: Eligibility for BUSA 11. On-the-job payroll accounting. Surveys the various tax procedures required by the employer and employee in filing the correct forms for Social Security, federal, and state income taxes and their reconciliation. Laws related to Worker’s Compensation, State Disability Benefit Laws and Fair Employment Practices are discussed.</td>
</tr>
<tr>
<td>BUSA 71</td>
<td>Personal Financial Planning</td>
<td>3</td>
<td>Degree Applicable, CSU</td>
<td>54 hours lecture. Personal and family financial planning for those who wish to understand their own finances across the lifespan and assist others in money management. Topics include financial goal setting, budgeting, consumer credit, debt management, banking functions, income taxes, home ownership, insurance, investing, and retirement planning. Students may not earn credit for both BUSA 71 and FCS 80.</td>
</tr>
<tr>
<td>BUSA 72</td>
<td>Bookkeeping - Accounting</td>
<td>5</td>
<td>Degree Applicable</td>
<td>90 hours lecture. Prerequisite: BUSA 68 or eligibility for MATH 50. Bookkeeping and accounting principles including the accounting cycle for service and merchandising companies, cash management, payroll and special journals. Computerized simulations and completion of an accounting project for a company.</td>
</tr>
<tr>
<td>BUSA 75</td>
<td>Using Microcomputers in Financial Accounting</td>
<td>1</td>
<td>Degree Applicable</td>
<td>18 hours lecture. Prerequisite: BUSA 7 or BUSA 72. 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.</td>
</tr>
<tr>
<td>BUSA 81</td>
<td>Work Experience in Accounting</td>
<td>1 to 4</td>
<td>Degree Applicable</td>
<td>(May be taken for Pass/No Pass only) 75 to 300 hours lab. Prerequisite: Compliance with Work Experience regulations as designated in the College Catalog. Advisory: BUSA 7 or BUSA 72. Provides accounting students with actual on-the-job experience in an approved work site which is related to classroom-based learning. A minimum of 75 paid clock hours or 80 non-paid clock hours per semester is required for each one unit of credit. Work experience placement is not guaranteed but assistance is provided. Students who repeat this course will improve skills through further instruction and practice.</td>
</tr>
</tbody>
</table>

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**Addendum:**
- BUSA 52 — Intermediate Accounting
- BUSA 66 — Business Mathematics
- BUSA 76 — Using Microcomputers in Managerial Accounting
- BUSA 81 — Work Experience in Accounting

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**Notes:**
- BUSA 72 — Bookkeeping - Accounting
- BUSA 76 — Using Microcomputers in Managerial Accounting
- BUSA 81 — Work Experience in Accounting

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**Additional Resources:**
- BUSA 7 — Principles of Accounting - Financial
- BUSA 8 — Principles of Accounting - Managerial
- BUSA 11 — Fundamentals of Accounting
- BUSA 70 — Payroll and Tax Accounting
- BUSA 71 — Personal Financial Planning

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**Contact:**
- For more information, contact the Business Administration and Accounting department at (714) 998-7767.
<table>
<thead>
<tr>
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<tbody>
<tr>
<td>BUSO 5</td>
<td>Business English</td>
<td>3</td>
<td>Skills and techniques of English, as applied to business situations, with emphasis on effective document structure.</td>
</tr>
<tr>
<td>BUSO 25</td>
<td>Business Communications</td>
<td>3</td>
<td>Written communications including letters and memos meeting a variety of situations in the business environment. Includes writing of good news, bad news, sales, claims, and persuasive correspondence; letters and resumes appropriate to job seeking and application; and practicing oral skills as applied to job interviews and business reports.</td>
</tr>
<tr>
<td>BUSO 26</td>
<td>Oral Communications for Business</td>
<td>3</td>
<td>Oral communication used in business situations such as training sessions, presentations, professional discussions, and telephone interactions.</td>
</tr>
<tr>
<td>BUSC 1A</td>
<td>Principles of Economics - Macroeconomics</td>
<td>3</td>
<td>Principles of aggregate economic analysis; economic cycles including recession, unemployment, inflation and economic growth; national income accounts; money and financial institutions; monetary and fiscal policy; alternative economic viewpoint; budget deficits and public debts; international trade and finance.</td>
</tr>
<tr>
<td>BUSC 1B</td>
<td>Principles of Economics - Microeconomics</td>
<td>3</td>
<td>Economic analysis with emphasis on price and distribution theory, scarcity, opportunity costs, supply, demand, elasticity of supply and demand, consumer’s behavior, cost theory and output determination under various market structures, factor markets, public choice, income distribution, externalities and government regulation, and comparative economic systems.</td>
</tr>
<tr>
<td>BUSC 1B</td>
<td>Principles of Economics - Honors</td>
<td>3</td>
<td>Economic analysis with emphasis on price and distribution theory, scarcity, opportunity costs, supply, demand, elasticity of supply and demand, consumer’s behavior, cost theory and output determination under various market structures, factor markets, public choice, income distribution, externalities and government regulation, and comparative economic systems. This is an honors course designed to provide an enriched experience. Students may not receive credit for both BUSC 1B and BUSC 1AH.</td>
</tr>
<tr>
<td>BUSC 1BH</td>
<td>Principles of Economics - Microeconomics - Honors</td>
<td>3</td>
<td>Economic analysis with emphasis on price and distribution theory, scarcity, opportunity costs, supply, demand, elasticity of supply and demand, consumer’s behavior, cost theory and output determination under various market structures, factor markets, public choice, income distribution, externalities and government regulation, and comparative economic systems.</td>
</tr>
<tr>
<td>BUSC 1BH</td>
<td>Principles of Economics - Honors</td>
<td>3</td>
<td>Economic analysis with emphasis on price and distribution theory, scarcity, opportunity costs, supply, demand, elasticity of supply and demand, consumer’s behavior, cost theory and output determination under various market structures, factor markets, public choice, income distribution, externalities and government regulation, and comparative economic systems.</td>
</tr>
<tr>
<td>BUSC 17</td>
<td>Applied Business Statistics</td>
<td>3</td>
<td>Statistical reasoning and application of primary statistical techniques used in solving managerial problems. Topics include collection and interpretation of data, measures of central tendency and dispersion, probability distributions, sampling and estimation, hypothesis testing, analysis of variance, linear regression and correlation and index numbers.</td>
</tr>
<tr>
<td>BUSL 18</td>
<td>Business Law</td>
<td>3</td>
<td>Principles of business law emphasizing legal setting of business, nature of the law and court procedures, principles of contract law, sales of goods under the Uniform Commercial Code, torts, and criminal law.</td>
</tr>
<tr>
<td>BUSL 18H</td>
<td>Business Law - Honors</td>
<td>3</td>
<td>Principles of business law emphasizing legal setting of business, nature of the law and court procedures, principles of contract law, sales of goods under the Uniform Commercial Code, torts, and criminal law. An honors course designed to provide an enriched experience. Students may not receive credit for both BUSL 18 and BUSL 18H.</td>
</tr>
<tr>
<td>BUSL 19</td>
<td>Advanced Business Law</td>
<td>3</td>
<td>Principles of business law emphasizing commercial paper, agency, partnerships, corporations, bankruptcy, regulation of trade and real property.</td>
</tr>
<tr>
<td>BUSL 20</td>
<td>International Business Law</td>
<td>3</td>
<td>A comparative approach to the study of the international legal environment for business. Cultural, political, economic and ethical issues are emphasized as well as traditional business law subjects such as sales, commercial paper, corporate law, agency, licensing, employment, crimes, trade regulation and technology transfers.</td>
</tr>
<tr>
<td>BUSL 100</td>
<td>Everyday Law</td>
<td>3</td>
<td>Practical aspects of current U.S. law, including the court system and civil procedures, the U.S. Constitution, legal ethics, tort law, criminal law and procedures, contracts, real estate law, family law, and careers in law. Required for 2+2+3 articulation.</td>
</tr>
</tbody>
</table>
BUSINESS: MANAGEMENT

- **BUSM 10 — Principles of Continuous Quality Improvement** 3 Units
  54 hours lecture
  Advisory: BUSO 5 or eligibility for ENGL 68
  History and evolution of thought in Continuous Quality Improvement (CQI), including the theories and methods of Deming, Juran and Crosby. Practical application of quality management processes and tools are presented for the continuous improvement of organizational quality. Relevant case studies are included.

- **BUSM 20 — Principles of Business** 3 Units
  54 hours lecture
  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 50 — World Culture: A Business Perspective** 3 Units
  54 hours lecture
  Degree Applicable, 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
  Advisory: Eligibility for ENGL 68 or BUSO 5
  International business environment with 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
  Advisory: Eligibility for ENGL 68 or BUSO 5
  Practical information needed to participate in activities related to the exporting and importing of goods and services. Includes vocabulary, acronyms and 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 Applicable, CSU
  Inter-disciplinary study of how people work and relate at the individual, group and organizational level. Topics include motivation, teamwork, leadership skill and how to handle organizational change.

- **BUSM 61 — Business Organization and Management** 3 Units
  54 hours lecture
  Advisory: BUSM 20
  Functions of management, management concepts, planning, organizing, staffing and controlling. Theories of management, lines of authority, functions of departments, and the importance of policies, procedures, and controls.

- **BUSM 62 — Human Resource Management** 3 Units
  54 hours lecture
  Degree Applicable, CSU
  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.

- **BUSM 66 — Small Business Management** 3 Units
  54 hours lecture
  Degree Applicable, CSU
  Organizing, starting, and operating a small business enterprise. Emphasis on entrepreneurial applications in a small business environment.

- **BUSM 81 — Work Experience in Business** 1 to 4 Units
  (May be taken for Pass/No Pass only)
  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.

- **BUSM 85 — Special Issues in Business** 2 Units
  36 hours lecture
  Degree Applicable
  (May be taken for option of letter grade or Pass/No Pass)
  Provide business majors with a forum to gain knowledge, develop techniques, problem solve and implement solutions in an actual business situation.

BUSINESS: PARALEGAL

- **PLGL 30 — Introduction to Paralegal/Legal Studies** 3 Units
  54 hours lecture
  Prerequisite: ENGL 68
  Degree Applicable, CSU
  Federal and state legal systems, the relationship of paralegals to attorneys, legal writing and research, investigation of claims, and legal ethics for paralegals.

- **PLGL 31A — Legal Analysis and Writing** 3 Units
  54 hours lecture
  Prerequisite: PLGL 30 (May have been taken previously)
  Degree Applicable, CSU
  Use of a law library for legal research and references, reading and analyzing codes and statutes, and preparation of case briefs and research reports.

- **PLGL 31B — Advanced Legal Analysis and Writing** 3 Units
  54 hours lecture
  Prerequisite: PLGL 30 and PLGL 31A
  Degree Applicable, CSU
  Preparing for litigation. Includes discovery, preparation of legal papers and court activity. Examines the concepts of jurisdiction, venue, parties to the action, summons, default judgments, and pleadings.

- **PLGL 33A — Civil Procedure I** 3 Units
  54 hours lecture
  Prerequisite: PLGL 30 (May have been taken previously)
  Degree Applicable, CSU
  Analysis of the pretrial procedural steps to litigating a cause of action. Examines the concepts of jurisdiction, venue, parties to the action, summons, default judgments, and pleadings.

- **PLGL 33B — Civil Procedure II** 3 Units
  54 hours lecture
  Prerequisite: PLGL 32A
  Degree Applicable, CSU
  Preparing for litigation. Includes discovery, preparation of law and motion documents, remedies, summary judgments, motions to dismiss, settlements, and arbitration.

- **PLGL 35A — Law Office Procedures** 3 Units
  54 hours lecture
  Prerequisite: PLGL 30 (May have been taken previously)
  Degree Applicable, CSU
  Examines procedures utilized by a paralegal in a law office. Court systems, preparation and filing of legal papers and court documents, and drafting specialized documents in such areas as estate planning, real estate, divorce, unlawful detainer, adoption, corporations, conservatorships and guardianships.
PLGL 35B — Automated Law Office Procedures 3 Units
Degree Applicable
54 hours lecture
Prerequisite: PLGL 30 and PLGL 35A
Advisory: CISB 15
Use of the personal computer for special purposes in the law office; includes the drafting of pleadings, document control, preparation of billing, law office and case load management, and tax reports.

PLGL 36 — Paralegal Internship 1 Unit
Degree Applicable
(May be taken for Pass/No Pass only)
75 hours lab
Prerequisite: PLGL 31A, PLGL 33A, and PLGL 35A
Corequisite: PLGL 31B, PLGL 33B, PLGL 35B, PLGL 37, PLGL 39 (may have been taken previously)
Designed to provide the student with actual on-the-job experience in the paralegal profession which relates to student's classroom-based learning. Placement is not guaranteed but assistance is provided by the paralegal faculty. A minimum of five hours per week of supervised work (minimum 75 paid clock hours or 60 non-paid clock hours per semester) is required.

PLGL 37 — Tort Law 3 Units
Degree Applicable, CSU
54 hours lecture
Analysis of the law of torts including intentional torts such as assault, battery, false imprisonment, defamation, privacy, trespass and nuisance; negligence; and strict liability. Examination of insurance defense issues.

PLGL 38 — Employment and Ethical Issues in Paralegalism 2 Units
Degree Applicable
36 hours lecture
Prerequisite: PLGL 31A, PLGL 33A, and PLGL 35A
Corequisite: PLGL 31B, PLGL 33B, PLGL 35B, PLGL 37, PLGL 39 (may have been taken previously)
Job search skills including preparation of resumes and cover letters, interviewing, networking, and paralegal and attorney ethics.

PLGL 39 — Contract Law 3 Units
Degree Applicable, CSU
54 hours lecture

PLGL 40 — Landlord-Tenant Law 3 Units
Degree Applicable, CSU
54 hours lecture
Landlord-tenant law and creation of legal documentation to represent the landlord-tenant relationship. Examination of the rights and liabilities of the landlord and the tenant.

PLGL 41 — Property Law 3 Units
Degree Applicable
54 hours lecture
Examination of the law relating to real and personal property. Analysis of the various forms of ownership of real property; easements, covenants, conditions, and licenses; constitutional questions; types of real estate deeds; and land use controls.

PLGL 42 — Family Law 3 Units
Degree Applicable
54 hours lecture
Laws relating to marriage, dissolution, nullity, and legal separation. Includes topics of community property, child custody, child support, spousal support, and prenuptial and antenuptial agreements.

PLGL 43 — Wills and Trusts 3 Units
Degree Applicable, CSU
54 hours lecture
Legal principles of the laws of wills and trusts, organization and jurisdiction of the California Probate Courts, estate planning and estate taxes.

PLGL 44 — Bankruptcy Law 3 Units
Degree Applicable, CSU
54 hours lecture
Creation, scope, and administrative function of federal bankruptcy proceedings and arrangements. Includes wage earner plans and insolvency proceedings.

PLGL 45 — Creditors’ Rights 3 Units
Degree Applicable, CSU
54 hours lecture
Creation, perfection, and enforcement of security interests in property. Unsecured creditors and their methods of enforcing rights and obtaining judgments.

PLGL 47A — Litigation Procedures 3 Units
Degree Applicable, CSU
54 hours lecture
Overview of litigation procedures. Description of a trial and trial presentations are emphasized. Preparation of opening statements, direct and cross examinations, and closing statements. Elements of oral argument are examined. Methods of responding to questioning are analyzed.

PLGL 47B — Litigation Practice 1.5 Units
Degree Applicable, CSU
27 hours lecture
Corequisite: PLGL 47A (May have been taken previously)
Litigation practice including the mechanics of trial, opening statements and closing arguments, and direct and cross-examinations.

PLGL 48 — Criminal Law and Procedures 3 Units
Degree Applicable
54 hours lecture
General principles of criminal law and procedure, elements of crimes against person and property, parties to a crime, defenses to crimes. Analysis of procedural law relating to arrest, search and seizure, rights to counsel and a jury, evidentiary issues, sentencing and appeal.

PLGL 49 — Evidence Law 3 Units
Degree Applicable, CSU
54 hours lecture
Evidence law in civil and criminal cases: principles of relevance and competence of evidence; hearsay and character evidence rules; evidentiary privileges; use and authentication of writings. Use of evidence at trial, burdens of proof and presumptions, constitutional issues.

PLGL 50 — Comparative Law 3 Units
Degree Applicable
54 hours lecture
A comparison of the traditions and legal systems of various nations. Specific legal concepts and principles relating to areas of business, substantive law, and procedural law are compared to illustrate and distinguish those systems from the U.S. system. Ethics, language, and management issues are considered with regard to doing business abroad.

PLGL 48A — Real Estate Principles 3 Units
Degree Applicable, CSU
54 hours lecture
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
Prerequisite: BUSR 50
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
Corequisite: BUSR 50 (May have been taken previously)
Office procedures and practices in listings, advertising, prospecting, financing, exchanges, property management, salesmanship, land utilization and public relations. Must be completed prior to applying to take the Salesperson License Exam.

Busr 52D — Real Estate Practice Work Experience 3 Units
225 hours lab
Corequisite: BUSR 50 and not possessing a permanent California real estate license at time of enrollment. Student must be enrolled in seven units minimum including work experience units.
Provides a minimum of 180 hours of on-site real estate office and/or field work experience under the supervision of a licensed California real estate professional and a college instructor/coordinator. Designed to satisfy Department of Real Estate licensing requirements serving as an equivalent to BUSR 52. Students who repeat this course will improve their skills through further instruction and practice.

Busr 53 — Real Estate Finance 3 Units
54 hours lecture
Prerequisite: BUSR 50
Real estate financing sources, loans underwriting, applications, and appraisals. Can be used to meet the additional educational requirement of the salesperson or broker license.

Busr 55 — Real Estate Economics 3 Units
54 hours lecture
Prerequisite: BUSR 50
Analysis of international, national and local factors which determine the value of real estate.

Busr 57 — Income Tax Aspects of Real Estate Investments 3 Units
54 hours lecture
Prerequisite: BUSR 50
Income tax principles governing the acquisition, ownership, operation and disposition of real property investments with special emphasis on tax planning and integration of tax concepts with procedural aspects. May be used as an elective course to satisfy one of the California Department of Real Estate’s requirements for the salesperson or broker license.

Busr 59 — Real Estate Property Management 3 Units
54 hours lecture
Prerequisite: BUSR 50
Property management for owners and managers of residential and commercial income properties. Meets California real estate license requirements for salesperson and broker.

Busr 60 — Real Estate Investment Planning 3 Units
54 hours lecture
Prerequisite: BUSR 50
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
54 hours lecture
Prerequisite: BUSR 50
State and Federal laws that govern the practice of mortgage loan brokerage and lending in the State of California as well as mortgage lending history and process. May be used as an elective for the salesperson or broker license.

Busr 63 — Escrow Procedures II 3 Units
54 hours lecture
Prerequisite: BUSR 50
Escrow procedures including processing of case study sale escrows with and without new trust deed financing, including escrow vocabulary, drawing of documents, and other processing details pertinent to handling escrows from inception to closing. May be used as an elective for the salesperson or broker license.

Busr 81 — Appraisal: Principles and Procedures 3.5 Units
63 hours lecture
Prerequisite: BUSR 50
Advisory: BUSR 50
Principles and procedures of appraising real property with emphasis on residential properties. Required by Office of Real Estate Appraisers (OREA) for all appraisal licenses and by the Department of Real Estate (DRE) for real estate broker license. Provides 60 hours toward OREA requirements for state licensing. Includes all topics listed in Appraisal Qualifications Board (AQB) Basic Appraisal Principles and Basic Appraisal Procedures modules. May be used as the elective course for the salesperson license.

Business: Sales, Merchandising, and Marketing

Bus 33 — Advertising and Promotion 3 Units
54 hours lecture
Degree Applicable, CSU
Characteristics and role of advertising and promotion in business. Emphasis is placed on promotional mix, trend and forecast research, and developing a comprehensive multimedia promotion plan including advertising layout and copy.

Bus 35 — Professional Selling 3 Units
54 hours lecture
Degree Applicable, CSU
Prerequisite: Eligibility for ENGL 68
Characteristics and role of a salesperson. 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.

Bus 36 — Principles of Marketing 3 Units
54 hours lecture
Degree Applicable, CSU
Prerequisite: Eligibility for ENGL 68
Characteristics and role of advertising and promotion in business. Emphasis is placed on promotional mix, trend and forecast research, and developing a comprehensive multimedia promotion plan including advertising layout and copy.

Bus 50 — Retail Store Management and Merchandising 3 Units
54 hours lecture
Degree Applicable, CSU
Principles and practices used in the management and merchandising of retail stores. Includes critical buying function, merchandising, promotional techniques, site selection, layout, staffing, market positioning and customer service.
Degree Applicable, CSU, UC

CHEM 10 — Chemistry for Allied Health Majors 5 Units

72 hours lecture
54 hours lab
Prerequisite: Eligibility for MATH 71

Principles of inorganic chemistry including measurements, structure, nomenclature, reactions, stoichiometry, thermochemistry, periodic trends, atomic structure, chemical bonding and structure, properties of gases, liquids, solids and solutions. Emphasis is on critical thinking as well as mathematical and dimensional analysis problem-solving. Laboratory experiments emphasize the scientific method as well as computer-based technologies in data acquisition and analysis. Introduces laboratory report writing skills.

CHEM 40 — Introduction to General Chemistry 5 Units

72 hours lecture
54 hours lab
Prerequisite: Eligibility for MATH 71

Prerequisites: BUSS 33 or BUSS 35 or BUSS 36 or BUSS 50 and compliance with Work Experience regulations as designated in the College Catalog

Job experience in an approved work site relating to classroom-based learning for marketing students. 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.

BUSS 79 — Work Experience in Marketing Management 1 to 4 Units

(Degree Applicable)

(May be taken for Pass/No Pass only)
75 to 300 hours lab

Prerequisite: BUSS 33 or BUSS 35 or BUSS 36 or BUSS 50

Provides marketing students with an opportunity to problem solve and develop a marketing plan or related project as requested by a local business.

BUSS 85 — Special Issues in Marketing 2 Units

(Degree Applicable)

(May be taken for option of letter grade or Pass/No Pass)
36 hours lecture

Prerequisite: BUSS 33 or BUSS 35 or BUSS 36 or BUSS 50

Prerequisites: BS 33 or BUSS 35 or BUSS 36 or BUSS 50

Provides marketing students with an opportunity to problem solve and develop a marketing plan or related project as requested by a local business.

CHEM 50 — General Chemistry I 5 Units

(C-ID CHEM 110) Degree Applicable, CSU, UC

54 hours lecture
108 hours lab
Prerequisite: CHEM 40 or satisfactory score on Chemistry Placement Examination, and MATH 71, 71B or 71X or equivalent.

Prerequisite: CHEM 40 or satisfactory score on Chemistry Placement Examination, and MATH 71, 71B or 71X or equivalent.

In depth treatment of chemical formulas, equations, nomenclature, reactions, stoichiometry, thermochemistry, periodic trends, atomic structure, chemical bonding and structure, properties of gases, liquids, solids and solutions. Emphasis is on critical thinking as well as mathematical and dimensional analysis problem-solving. Laboratory experiments emphasize the scientific method as well as computer-based technologies in data acquisition and analysis. Introduces laboratory report writing skills.

CHEM 50H — General Chemistry I - Honors 5 Units

(C-ID CHEM 110) Degree Applicable, CSU, UC

54 hours lecture
108 hours lab
Prerequisite: Acceptance into the Honors Program. CHEM 40 or satisfactory score on Chemistry Placement Examination, and MATH 71, 71B or 71X or equivalent.

Prerequisite: Acceptance into the Honors Program. CHEM 40 or satisfactory score on Chemistry Placement Examination, and MATH 71, 71B or 71X or equivalent.

In depth treatment of chemical formulas, equations, nomenclature, reactions, stoichiometry, thermochemistry, periodic trends, atomic structure, chemical bonding and structure, properties of gases, liquids, solids and solutions. Emphasis is on critical thinking as well as mathematical and dimensional analysis problem-solving. Laboratory experiments emphasize the scientific method as well as computer-based technologies in data acquisition and analysis. Introduces laboratory report writing skills. An honors course designed to provide an enriched experience. Students may not receive credit for both CHEM 50 and CHEM 50H.

CHEM 51 — General Chemistry II 5 Units

Degree Applicable, CSU, UC

54 hours lecture
108 hours lab
Prerequisite: CHEM 50 or CHEM 50H

Prerequisite: CHEM 50 or CHEM 50H

Application of the laws, theories and principles presented in CHEM 50 to a variety of chemical systems. Topics include kinetics, equilibrium, thermodynamics, acid-base and oxidation-reduction reactions, transition metals, electrochemistry, and nuclear chemistry. Emphasis is on critical thinking and mathematical problem-solving. Laboratory experiments use computer-based technologies in data acquisition and analysis.

CHEM 51H — General Chemistry II - Honors 5 Units

Degree Applicable, CSU, UC

54 hours lecture
108 hours lab
Prerequisite: CHEM 51 or CHEM 51H

Prerequisite: CHEM 51 or CHEM 51H

Designed for chemistry, biochemistry, chemical engineering and biology majors; also for those in pre-professional programs such as medicine, veterinary medicine, dentistry, optometry and pharmacy. Structure/reactivity relationships, energetics, reactions, reaction mechanisms, synthesis, separation, characterization and spectroscopic methods for organic compounds. To assure that all content material is covered, it is recommended that students complete the entire one-year sequence at one campus prior to transfer.

CHEM 50 — General Chemistry II 5 Units

Degree Applicable, CSU, UC

54 hours lecture
108 hours lab
Prerequisite: CHEM 50 or CHEM 50H

Prerequisite: CHEM 50 or CHEM 50H

In depth treatment of chemical formulas, equations, nomenclature, reactions, stoichiometry, thermochemistry, periodic trends, atomic structure, chemical bonding and structure, properties of gases, liquids, solids and solutions. Emphasis is on critical thinking as well as mathematical and dimensional analysis problem-solving. Laboratory experiments emphasize the scientific method as well as computer-based technologies in data acquisition and analysis. Introduces laboratory report writing skills. An honors course designed to provide an enriched experience. Students may not receive credit for both CHEM 50 and CHEM 50H.

CHEM 51 — General Chemistry II 5 Units

Degree Applicable, CSU, UC

54 hours lecture
108 hours lab
Prerequisite: CHEM 50 or CHEM 50H

Prerequisite: CHEM 50 or CHEM 50H

Application of the laws, theories and principles presented in CHEM 50 to a variety of chemical systems. Topics include kinetics, equilibrium, thermodynamics, acid-base and oxidation-reduction reactions, transition metals, electrochemistry, and nuclear chemistry. Emphasis is on critical thinking and mathematical problem-solving. Laboratory experiments use computer-based technologies in data acquisition and analysis.

CHEM 60 — Quantitative Chemical Analysis 5 Units

Degree Applicable, CSU, UC

54 hours lecture
108 hours lab
Prerequisite: CHEM 51

Prerequisite: CHEM 51

Techniques of gravimetric, volumetric and instrumental analysis. Precision in measurements, computations, accurate record keeping and report writing. General procedures, skills, methods, practices, philosophies, terminologies and ethics found in industrial, governmental and academic laboratories.

CHEM 80 — Organic Chemistry 5 Units

Degree Applicable, CSU, UC

54 hours lecture
108 hours lab
Prerequisite: CHEM 51

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 assure that all content material is covered, it is recommended that students complete the entire one-year sequence at one campus prior to transfer.

CHEM 81 — Organic Chemistry II 5 Units

Degree Applicable, CSU, UC

54 hours lecture
108 hours lab
Prerequisite: CHEM 80

Prerequisite: CHEM 80

Designed for chemistry, biochemistry, chemical engineering and biology majors; also for those in pre-professional programs such as medicine, veterinary medicine, dentistry, optometry and pharmacy. Structure/reactivity relationships, energetics, reactions, reaction mechanisms, synthesis, separation, characterization and spectroscopic methods. Structure, synthesis and representative reactions of carbohydrates, lipids and proteins.
COURSE DESCRIPTIONS

[22x443]COURSE DESCRIPTIONS

Prerequisite: Eligibility for ENGL 68

Home, child, school and community relationships as they pertain to the historical and contemporary perspectives on the education and socialization of children. Family systems and community resources and the influences of age, gender, culture, diverse abilities, socioeconomic status and public policies factors that affect children and families.

CHLD 5 — Principles and Practices in Child Development Programs
(3 units)
Degree Applicable, CSU, UC
54 hours lecture
Prerequisite: Acceptance into the Honors Program
Examines major physical, psychosocial, cognitive, language and brain developmental processes prenatal through adolescence. Emphasis on theoretical and research methodological perspectives and environmental factors. Meets Title 22 and Title V requirements for the Child Development Permit. TB test/observations required. An honors course designed to provide an enriched experience for accelerated students. Students may not receive credit for both CHLD 10 and CHLD 10H.

CHLD 10 — Child Growth and Lifespan Development
3 Units
Degree Applicable, CSU, UC
54 hours lecture
Human lifespan and developmental influences. Developmental approach to the study of the person identifying forces affecting growth processes from conception through adulthood. Meets Title 22 and Title V Regulations pertaining to Child Development Permit. Out-of-class observations and interviews required. TB test required.

CHLD 10H — Child Growth and Lifespan Development - Honors
3 Units
Degree Applicable, CSU, UC
54 hours lecture
Prerequisite: Acceptance into the Honors Program
Human lifespan and developmental influences. Developmental approach to the study of the person identifying forces affecting growth processes from conception through adulthood. Meets Title 22 and Title V Regulations pertaining to Child Development Permit. Out-of-class observations and interviews required. TB test required. An honors course designed to provide an enriched experience for accelerated students. Students may not receive credit for both CHLD 10 and CHLD 10H.

CHLD 11 — Child and Adolescent Development
3 Units
Degree Applicable, CSU, UC
54 hours lecture
Examines major physical, psychosocial, cognitive, language and brain developmental processes prenatal through adolescence. Emphasis on theoretical and research methodological perspectives and environmental factors. Meets Title 22 and Title V requirements for the Child Development Permit. TB test, out-of-class observations and interviews required.

CHLD 51 — Early Literacy in Child Development
3 Units
Degree Applicable, CSU
54 hours lecture
Advisory: CHLD 6
Examines the developmental continuum of literacy from birth through early childhood. Considerations of cultural and linguistic diversity are applied to the study of how children become competent in all areas of language. An appreciation of the importance of interaction and cooperation between home and school underlies the exploration of language and literacy acquisition. Issues of early literacy in public policy are reviewed. TB test/observations required.

CHLD 61 — Language Arts and Art Media for Young Children
3 Units
Degree Applicable
54 hours lecture
Advisory: CHLD 61
Explore activities and techniques to develop artistic creativity and literacy skills in young children. Participation in art and literacy experiences to evaluate materials and approaches used in the early education setting. Discussion of the creative process and other relevant literacy activities within diverse cultures that support learning. Development of a culturally and linguistically appropriate learning environment which encourages children’s use of senses and builds children’s awareness of aesthetic materials through art and language arts activities.

CHLD 62 — Music and Motor Development for Young Children
3 Units
Degree Applicable, CSU
54 hours lecture
Advisory: CHLD 61
Explore the role of music and movement in a young child’s sensory motor development. Emphasizes student development in practical activities including making music, movement, singing and musical instruments. Out of class observation at a child development center required. TB test required.

CHLD 63 — Creative Sciencing and Math for Young Children
3 Units
Degree Applicable
54 hours lecture
Advisory: Eligibility for ENGL 68
Explore children’s thinking processes and problem-solving abilities as they become aware of the physical world. Includes planning and creating science and math experiences that emphasize the creative aspects of math and science.
### Course Descriptions

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Units</th>
<th>Type</th>
<th>Prerequisites</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHLD 64</td>
<td>Health, Safety and Nutrition of Children</td>
<td>3</td>
<td>Degree Applicable, CSU</td>
<td></td>
</tr>
<tr>
<td>CHLD 66</td>
<td>Early Childhood Development Observation</td>
<td>2</td>
<td>Degree Applicable, CSU</td>
<td>(C-ID ECE 220)</td>
</tr>
<tr>
<td>CHLD 66L</td>
<td>Early Childhood Development Observation Laboratory</td>
<td>1</td>
<td>Degree Applicable, CSU</td>
<td>(C-ID ECE 200)</td>
</tr>
<tr>
<td>CHLD 67</td>
<td>Early Childhood Education Practicum</td>
<td>2</td>
<td>Degree Applicable, CSU</td>
<td>(C-ID ECE 200)</td>
</tr>
<tr>
<td>CHLD 67L</td>
<td>Early Childhood Education Practicum Laboratory</td>
<td>1</td>
<td>Degree Applicable, CSU</td>
<td>(C-ID ECE 220)</td>
</tr>
<tr>
<td>CHLD 68</td>
<td>Children With Special Needs</td>
<td>3</td>
<td>Degree Applicable, CSU</td>
<td></td>
</tr>
<tr>
<td>CHLD 69</td>
<td>Early Childhood Development Field Work Seminar</td>
<td>2</td>
<td>Degree Applicable, CSU</td>
<td></td>
</tr>
<tr>
<td>CHLD 71A</td>
<td>Administration of Child Development Programs</td>
<td>3</td>
<td>Degree Applicable, CSU</td>
<td></td>
</tr>
<tr>
<td>CHLD 71B</td>
<td>Management/Marketing/Personnel for ECD Programs</td>
<td>3</td>
<td>Degree Applicable, CSU</td>
<td></td>
</tr>
<tr>
<td>CHLD 72</td>
<td>Teacher, Parent, and Child Relationships</td>
<td>3</td>
<td>Degree Applicable, CSU</td>
<td></td>
</tr>
<tr>
<td>CHLD 73</td>
<td>Infant/Toddler Care and Development</td>
<td>3</td>
<td>Degree Applicable, CSU</td>
<td></td>
</tr>
<tr>
<td>CHLD 74</td>
<td>Program Planning for the School Age Child</td>
<td>3</td>
<td>Degree Applicable, CSU</td>
<td></td>
</tr>
<tr>
<td>CHLD 75</td>
<td>Supervising Adults in Early Childhood Settings</td>
<td>2</td>
<td>Degree Applicable, CSU</td>
<td></td>
</tr>
<tr>
<td>CHLD 76</td>
<td>Early Childhood Education</td>
<td>3</td>
<td>Degree Applicable, CSU</td>
<td></td>
</tr>
<tr>
<td>CHLD 77</td>
<td>Program Planning for the School Age Child</td>
<td>3</td>
<td>Degree Applicable, CSU</td>
<td></td>
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<tr>
<td>CHLD 78</td>
<td>Supervising Adults in Early Childhood Settings</td>
<td>2</td>
<td>Degree Applicable, CSU</td>
<td></td>
</tr>
<tr>
<td>CHLD 79</td>
<td>Children With Special Needs</td>
<td>3</td>
<td>Degree Applicable, CSU</td>
<td></td>
</tr>
<tr>
<td>CHLD 81</td>
<td>Current Curriculum Models in Child Development</td>
<td>1</td>
<td>Degree Applicable, CSU</td>
<td>(May be taken for option of letter grade or Pass/No Pass)</td>
</tr>
</tbody>
</table>

Corequisite: CHLD 66L

CHLD 66L — Early Childhood Development Observation 1 Unit

36 hours lab

Prerequisite: CHLD 66

Understanding of child development through observation and assessment in the Early Childhood Education Laboratory School. A holistic approach to child study is emphasized. Students synthesize information which they have recorded and relate it to various domains of the preschool child’s growth and development. TB Test required. CHLD 66L must be taken concurrently.

CHLD 67 — Early Childhood Education Practicum 2 Units

36 hours lecture

Prerequisite: CHLD 66 and CHLD 66L

Child development principles in the preschool classroom setting and recognition of skills necessary for the teacher of young children. Evaluation of participation experiences.

CHLD 67L — Early Childhood Education Practicum Laboratory 1 Unit

63 hours lab

Corequisite: CHLD 67

Supervised teaching experience with young children. Child centered, play-oriented approaches to teaching, learning and assessment. Student teachers design, implement and evaluate curriculum for groups of children. Negative TB test result required.

CHLD 68 — Children With Special Needs 3 Units

54 hours lecture

Prerequisite: Eligibility for ENGL 68 AND (CHLD 10 or CHLD 10H or CHLD 11)

Typical and atypical characteristics in physical, cognitive, and social-emotional development for those planning to work with children with special needs. Topics relevant to the inclusive classroom are examined from a culturally sensitive, family-centered perspective. Examines current and historical legal issues, current educational trends, and community resources. TB test required for off-campus observations.

CHLD 69 — Early Childhood Development Field Work Seminar 2 Units

36 hours lecture

Prerequisite: CHLD 67 and CHLD 67L

Corequisite: CHLD 91

Selected student teaching problem-solving topics related to placement in community sites. Topics include philosophical orientation, curriculum, parent involvement, staff relations, professionalism and professional growth.

CHLD 71A — Administration of Child Development Programs 3 Units

54 hours lecture

Advisory: CHLD 1, CHLD 5, CHLD 6, CHLD 10 or CHLD 10H

Administration of children’s programs including laws governing children’s programs in California, site development and supervision, administrator’s duties, program budget and management, personnel selection and standards, records and reports, health and safety supervision and staff policies.

CHLD 71B — Management/Marketing/Personnel for ECD Programs 3 Units

54 hours lecture

Prerequisite: CHLD 71A

Strategic planning for childhood programs, including financial administration, marketing strategies and staff development. Personnel management practices designed to facilitate administrator and staff relationships, skill building in leadership, and team work.

CHLD 72 — Teacher, Parent, and Child Relationships 3 Units

54 hours lecture

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

Advisory: CHLD 10

Developmentally appropriate caregiving practices for infants and toddlers from birth to three. Includes teaching practices that support theories and practical application of attachment, cognition and relationship based learning. Student assignments involve up to ten hours of observations and participation with infants and toddlers outside of class time. TB test required for observations.

CHLD 74 — Program Planning for the School Age Child 3 Units

54 hours lecture

Advisory: CHLD 10 or CHLD 10H or CHLD 11

Principles of child development related to working with school-age children. Program planning and legal requirements for school-age programs emphasized. Explores discipline and conflict resolution. Methods of integrating after-school activities with California content standards. TB test required for observations.

CHLD 75 — Supervising Adults in Early Childhood Settings 2 Units

36 hours lecture

Advisory: CHLD 1 and CHLD 5

Methods and principles of working with and supervising adults in the early childhood setting. Emphasis is on the role of the experienced children’s teacher who functions as a model and mentor to new teachers as s/he addresses the needs of children, parents and staff.

CHLD 81 — Current Curriculum Models in Child Development 1 Unit

18 hours lecture

Provides students with working knowledge of specific curriculum models appropriate for child development programs. Origins, classroom practices, pros, cons, and evaluation methods discussed. Curriculum model will change with course offering.
Course Descriptions

- **CHLD 82 — Advocacy in Child Development** 1 Unit
  Degree Applicable
  (May be taken for option of letter grade or Pass/No Pass)
  18 hours lecture
  Current issues in Child Development; explores process of advocacy on behalf of children.

- **CHLD 83 — Current Issues in Child Development** 1 Unit
  Degree Applicable
  (May be taken for option of letter grade or Pass/No Pass)
  18 hours lecture
  Advisory: CHLD 5, CHLD 10 or CHLD 10H
  Principles and methods of working with infants who are disabled or at-risk. Emphasis on prenatal prevention, postnatal intervention, and support programs. Course will prepare caregivers of infants at risk for appropriate program planning.

- **CHLD 84 — Guidance and Discipline in Child Development Settings** 1 Unit
  Degree Applicable, CSU
  18 hours lecture
  Advisory: CHLD 5
  Problem solving approach to guidance and discipline of children in child development settings. Investigation of appropriate developmental and attitudinal aspects of producing a respectful environment between children, caregivers and parents.

- **CHLD 85 — Infants At Risk** 3 Units
  Degree Applicable
  54 hours lecture
  Prerequisite: CHLD 10
  Advisory: CHLD 73
  Principles and methods of working with infants who are disabled or at-risk. Emphasis on prenatal prevention, postnatal intervention, and support programs. Course will prepare caregivers of infants at risk for appropriate program planning. TB test and out-of-class observations required.

- **CHLD 91 — Early Childhood Development Field Work** 1 Unit
  Degree Applicable, CSU
  75 hours lab
  Prerequisite: CHLD 67 and CHLD 67L
  Course: CHLD 69
  A teacher-supervised work experience course which permits students to apply early childhood development principles in community preschools. CHLD 69 Seminar will supplement student’s progress. A minimum of 75 paid or 60 non-paid clock hours per semester of supervised work is required for each unit of credit. It is recommended that the hours per week be equally distributed throughout the semester. TB test is required.

- **CHIN 1 — Elementary Chinese** 4 Units
  Degree Applicable, CSU, UC
  72 hours lecture
  Intended for students without previous exposure to Chinese. Begins to develop the ability to converse, read, and write in Mandarin Chinese. Includes the study of essentials of pronunciation, vocabulary, idioms, and grammatical structures along with an introduction to Chinese culture.

- **CHIN 2 — Continuing Elementary Chinese** 4 Units
  Degree Applicable, CSU, UC
  72 hours lecture
  Prerequisite: CHIN 1 or equivalent
  Further develops conversational, reading, and writing skills in Mandarin Chinese with special emphasis on verbs, grammar, and extension of vocabulary.

- **CHIN 3 — Intermediate Chinese** 4 Units
  Degree Applicable, CSU, UC
  72 hours lecture
  Prerequisite: CHIN 2
  Further development of Mandarin Chinese language skills and their use as tools in exploring Chinese civilization. Further study and review of grammar, exercises in word building, derivation, and the extension of the active and recognition vocabularies.

- **CHIN 4 — Continuing Intermediate Chinese** 4 Units
  Degree Applicable, CSU, UC
  72 hours lecture
  Prerequisite: CHIN 3
  Using Mandarin in traveling, telling stories, describing experiences and discussing Chinese literary works, festivals, food and advanced grammar.

- **GRAP 8 — Fundamentals of Digital Media** 3 Units
  Degree Applicable, CSU
  36 hours lecture
  54 hours lab
  Introductory course for all disciplines interested in learning scientific concepts, terminology, and basic techniques used to produce digital media content. Includes software such as Adobe Photoshop, Apple iPhoto and iMovie, and computer and other electronic hardware techniques necessary to acquire, store, edit, transfer, or output digital media files.

- **GRAP 10 — Photoshop Imagery** 3 Units
  Degree Applicable
  (May be taken for option of letter grade or Pass/No Pass)
  36 hours lecture
  54 hours lab
  Adobe Photoshop software skills, techniques and digital workflow practices from digital image editing and retouching to the composites imagery commonly created for use in photography, commercial design, printing and publishing, the internet and multimedia authoring production.

- **GRAP 12 — Photoshop Imagery Extended** 3 Units
  Degree Applicable
  (May be taken for option of letter grade or Pass/No Pass)
  36 hours lecture
  54 hours lab
  Prerequisite: GRAP 10
  Adobe Illustrator software skills, techniques and digital workflow from essential digital drawing basics to creatively conceived illustrative imagery and renderings commonly created for use in commercial design, printing and publishing, the internet and multimedia authoring production.

- **GRAP 15 — InDesign Graphics** 3 Units
  Degree Applicable
  (May be taken for option of letter grade or Pass/No Pass)
  36 hours lecture
  54 hours lab
  Adobe InDesign software skills, techniques and digital workflow practices commonly created for use in essential computer graphics production processes for commercial design, printing and publishing, the Internet and multimedia authoring production.

- **GRAP 16 — Illustrator Graphics** 3 Units
  Degree Applicable
  (May be taken for option of letter grade or Pass/No Pass)
  36 hours lecture
  54 hours lab
  Adobe Illustrator software skills, techniques and digital workflow from essential digital drawing basics to creatively conceived illustrative imagery and renderings commonly created for use in commercial design, printing and publishing, the internet and multimedia authoring production.

- **GRAP 18 — 3D Graphics Imagery** 3 Units
  Degree Applicable
  (May be taken for option of letter grade or Pass/No Pass)
  36 hours lecture
  54 hours lab
  Adobe Illustrator software skills, techniques and digital workflow from essential digital drawing basics to creatively conceived illustrative imagery and renderings commonly created for use in commercial design, printing and publishing, the internet and multimedia authoring production.
■ **GRAP 20 — Multimedia Graphics** 3 Units
   Degree Applicable
   (May be taken for option of letter grade or Pass/No Pass)
   36 hours lecture
   54 hours lab
   Multimedia graphics software skills and production techniques for combining text, image, audio, video, animation and scripting media to author multimedia projects commonly created for self-expression, entertainment, commercial design, the internet, and multimedia production.

■ **GRAP 30 — Digital Productions** 3 Units
   Degree Applicable
   (May be taken for option of letter grade or Pass/No Pass)
   36 hours lecture
   54 hours lab
   Computer graphics production techniques and practices used in media creation and authoring professional projects commonly created for use in photography, commercial design, printing and publishing, the Internet and multimedia authoring production.

■ **GRAP 40 — Computer Graphics Special Topics** 2 Units
   Degree Applicable
   (May be taken for Pass/No Pass only)
   18 hours lecture
   54 hours lab
   Special topics expanding the essential knowledge, skills, production techniques and proficiency of Computer Graphics commonly created for self-expression, entertainment, commercial design, the Internet, and multimedia production.

■ **CISB 11 — Computer Information Systems** 3.5 Units
   Degree Applicable, CSU, UC
   54 hours lecture
   27 hours lab
   Overview of computer information systems including computer hardware, software, networking, programming, databases, Internet, security, systems analysis, ethics, and problem solving using business applications.

■ **CISB 15 — Microcomputer Applications** 3.5 Units
   Degree Applicable, CSU, UC
   54 hours lecture
   27 hours lab
   Windows 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.

■ **CISB 16 — Macintosh Applications** 2 Units
   Degree Applicable
   27 hours lecture
   27 hours lab
   Apple’s Macintosh computer, Mac OS X operating system, and related word processing, database, spreadsheet, and multimedia applications.

■ **CISB 20 — Microsoft Word** 3 Units
   Degree Applicable
   54 hours lecture
   Spreadsheet concepts using Microsoft Excel including formatting, formulas and functions, charts, linked worksheets, pivot tables, macros, and Visual Basic for Applications (VBA) code.

■ **CISB 21 — Microsoft Excel** 3 Units
   Degree Applicable
   (May be taken for option of letter grade or Pass/No Pass)
   54 hours lecture
   Word processing with Microsoft Word and its editing, formatting, and language tools to create, edit and format business and publication documents. Includes creating flyers, newsletters, and other publication documents using advanced formatting techniques and tools.

■ **CISB 51 — Microsoft PowerPoint** 3 Units
   Degree Applicable, CSU
   54 hours lecture
   Using PowerPoint to plan, design, and produce effective presentations. Includes creating charts, diagrams, and storyboards; developing appropriate text content; adding sound, animation, and movies.

■ **CISB 61 — Desktop Publishing Software** 3 Units
   Degree Applicable, CSU
   (May be taken for option of letter grade or Pass/No Pass)
   54 hours lecture
   Using desktop publishing software to integrate text and various graphic objects, design, edit, and produce a variety of high-quality business publications.
### Course Descriptions

#### CISD 14L — VBA for Excel and Access Lab  
5 Unit
Degree Applicable

| 27 hours lab | Corequisite: CISD 14 |
| Laboratory component for the CISD 14 course. Visual Basic for Applications (VBA) programming language exercises in both Excel and Access applications. Uses the structures learned in the CISD 14 course, including decision statements, looping, array manipulation, and error-handling. Use the Excel and Access Object Models and the ActiveX Data Objects model in programming projects. |

#### CISD 21 — Database Management - Microsoft SQL Server  
3 Units
Degree Applicable

| 54 hours lecture | Corequisite: CISD 21L |
| Laboratory for CISD 21 - Structured query language (SQL) and Transact-SQL for Microsoft SQL Server. Topics include creating database objects, retrieving and updating data, writing scripts, developing stored procedures and functions, developing triggers, and creating cursors. Student must be enrolled in CISD 21L, a concurrent lab co-requisite. |

#### CISD 21L — Database Management - Microsoft SQL  
5 Unit
Degree Applicable

| 27 hours lab | Corequisite: CISD 21 |
| Laboratory for CISD 21 - Structured query language (SQL) and Transact-SQL for Microsoft SQL Server. Topics include creating database objects, retrieving and updating data, writing scripts, developing stored procedures/functions, triggers, and creating cursors. Student must be enrolled in CISD 21L, a concurrent lecture co-requisite. |

#### CISD 31 — Database Management - Oracle  
3 Units
Degree Applicable

| 54 hours lecture | Corequisite: CISD 31L |
| Oracle database management system (DBMS) functions, concepts, and terms. Procedure Language/Structured Query Language (PL/SQL) is used to code, test, and implement stored procedures, functions, triggers, and packages. Relational database projects will be built using PL/SQL. Concurrent enrollment in CISD 31L is required. |

#### CISD 31L — Database Management - Oracle Laboratory  
.5 Unit
Degree Applicable

| 27 hours lab | Corequisite: CISD 31 |
| Laboratory for CISD 31 - Oracle database management system (DBMS) functions, concepts, and terms. Procedure Language/Structured Query Language (PL/SQL) is used to code, test, and implement stored procedures, functions, triggers, and packages. Relational database projects will be built using PL/SQL. Concurrent enrollment in CISD 31 is required. |

#### CISD 30 — Database Design  
3 Units
Degree Applicable

| 54 hours lecture | Advisory: CISD 11 and CISD 11L |
| Database design principles. Understanding database needs and functions, creating data models, entity-relationship (E-R) and Unified Modeling Language (UML) diagrams, using normalization rules and principles to create databases, learning basic database administrator objectives and tasks, and understanding the role of data warehousing and data mining. |

#### CISI 11 — Computer Keyboarding  
3 Units
Degree Applicable

| 54 hours lecture | Advisory: CISI 11 and BUSO 5 |
| Develops alpha and numeric keyboarding skills on a personal computer at a straight-copy rate of 25 to 40 gross words a minute with a predetermined error limit. Includes keyboarding of letters, tables, and manuscripts. |

#### CISI 41 — Office Management Skills  
3 Units
Degree Applicable

| 54 hours lecture | Advisory: CISI 11 and BUSO 5 |
| Training and skill building in filing systems and procedures, proof-reading, telephone techniques, faxing, emailing, and electronic calendaring of events, appointments and meetings. |

#### CISM 11 — Systems Analysis and Design  
3.5 Units
Degree Applicable, CSU, UC

| 54 hours lecture | Corequisite: CISB 11 |
| Information systems and the discipline of systems analysis in relation to the system development life cycle. Develops skills in applying the tools, techniques, and concepts of systems analysis to information systems development. Application of structured analysis and design methods and tools, including Computer Aided System Engineering (CASE) tools. |

#### CISN 11 — Telecommunications/Networking  
3 Units
Degree Applicable, CSU

| 54 hours lecture | Advisory: CISN 11L |
| Telecommunications Networking lab preparing students for first year Cisco Certified Network Associate (CCNA) and Network+ certification. Telecommunications networking focusing on network concepts and designs, network standards, Transmission Control Protocol and Internet Protocol (TCP/IP) version 4 (IPv4) and version 6 (IPv6), Open Systems Interconnection (OSI), network protocols, transmission media, switch, hardware architecture, local area network (LAN), wide area network (WAN), remote connectivity, Microsoft and Linux network operating system, network troubleshooting, maintenance, and upgrade, network and wireless security, system vulnerability, and network sniffing analysis. |

#### CISN 21 — Windows Operating System  
3 Units
Degree Applicable, CSU

| 54 hours lecture | Advisory: CISB 11 or CISB 15 |
| Windows operating system installation and performance tweaking, including hardware and software issues, Windows system files, and Windows security. |

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<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CISP 11L</td>
<td>Programming in Visual Basic Laboratory</td>
<td>.5</td>
<td>54 hours lecture; Corequisite: CISP 11; Laboratory for CISP 11 - Programming in Visual Basic. Planning and writing object-oriented applications in the business environment, using Windows Forms and Web Forms; user interface design classes, objects, properties, methods and events; control structures; lists and arrays; printing and print previews; access to a database. Concurrent enrollment in the lecture course CISP 11 - Programming in Visual Basic is required.</td>
</tr>
<tr>
<td>CISP 21L</td>
<td>Programming in Java Laboratory</td>
<td>.5</td>
<td>27 hours lab; Corequisite: CISP 21; Laboratory for CISP21 - Java Programming exercises focusing on design and development of object-oriented business programs and applications, documentation and debugging techniques, user interface, objects, variables, methods, events, elementary control structures, lists, arrays, and inheritance. Concurrent enrollment in the lecture course CISP 21 - Programming in Java is required.</td>
</tr>
<tr>
<td>CISP 31L</td>
<td>Programming in C++ Laboratory</td>
<td>.5</td>
<td>27 hours lab; Corequisite: CISP 31; Laboratory for object-oriented programming in C++ including object-oriented design, documentation, and debugging techniques. Elementary control structures, classes, overload operators and functions, and single and multiple inheritance. Student must be enrolled in CISP 31, a concurrent lecture co-requisite.</td>
</tr>
<tr>
<td>CISP 41L</td>
<td>Programming in C# Laboratory</td>
<td>.5</td>
<td>27 hours lab; Corequisite: CISP 41; Laboratory for programming in C# using Windows Forms and Web Forms. Course covers control structures (loops, if statements, and switch blocks), database access, multiple forms, and object-oriented programming concepts. Student must be enrolled in CISP 41L, a concurrent lab co-requisite.</td>
</tr>
</tbody>
</table>
### Course Descriptions

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Degree Applicable</th>
</tr>
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<tbody>
<tr>
<td>CISP 52</td>
<td>Mobile Device Programming</td>
<td>3</td>
<td>Degree Applicable</td>
</tr>
<tr>
<td>CISP 52L</td>
<td>Mobile Device Programming Laboratory</td>
<td>.5</td>
<td>Not Degree Applicable</td>
</tr>
<tr>
<td>CISP 51</td>
<td>Introduction to Game Programming</td>
<td>3</td>
<td>Not Degree Applicable</td>
</tr>
<tr>
<td>CISP 62</td>
<td>Introduction to OpenGL</td>
<td>3</td>
<td>Not Degree Applicable</td>
</tr>
<tr>
<td>CISP 62L</td>
<td>Introduction to OpenGL Laboratory</td>
<td>.5</td>
<td>Not Degree Applicable</td>
</tr>
<tr>
<td>CISS 11</td>
<td>Practical Computer Security</td>
<td>2</td>
<td>Degree Applicable</td>
</tr>
<tr>
<td>CISS 13</td>
<td>Principles of Information Systems Security</td>
<td>4</td>
<td>Degree Applicable</td>
</tr>
<tr>
<td>CISS 15</td>
<td>Operating Systems Security</td>
<td>3</td>
<td>Degree Applicable</td>
</tr>
<tr>
<td>CISS 21</td>
<td>Network Vulnerabilities and Countermeasures</td>
<td>3</td>
<td>Degree Applicable, CSU</td>
</tr>
<tr>
<td>CISS 21L</td>
<td>Network Vulnerabilities and Countermeasures Labor</td>
<td>.5</td>
<td>Degree Applicable, CSU</td>
</tr>
<tr>
<td>CISS 23</td>
<td>Network Analysis, Intrusion Detection/Prevention Systems</td>
<td>3</td>
<td>Degree Applicable, CSU</td>
</tr>
<tr>
<td>CISS 23L</td>
<td>Network Analysis, Intrusion Detection/Prevention Systems Laboratory</td>
<td>.5</td>
<td>Degree Applicable, CSU</td>
</tr>
</tbody>
</table>

#### Course Descriptions

- **CISP 52 — Mobile Device Programming**
  - 54 hours lecture
  - Corequisite: CISP 52L
  - Advisory: CISP 10 and CISW 21

  Mobile device programming covers user interface patterns and design, connectivity, and application architecture design. Student must be enrolled in CISP 52L, a concurrent lab co-requisite.

- **CISP 52L — Mobile Device Programming Laboratory**
  - .5 Unit

- **CISP 51 — Introduction to Game Programming**
  - 54 hours lecture
  - Corequisite: CISP 51L
  - Advisory: CISP 31 and CISP 34

  Game programming technologies and techniques, including programming languages and IDEs (Integrated Development Environment), libraries and engines, development design and principles, and application of game specific programming techniques. Student must be enrolled in CISP 51L concurrently.

- **CISP 62 — Introduction to OpenGL**
  - 54 hours lecture
  - Corequisite: CISP 62L

  Programming and creating 3D animated games with OpenGL.

- **CISP 62L — Introduction to OpenGL Laboratory**
  - .5 Unit

  27 hours lab
  - Corequisite: CISP 62
  - The course provides practical implementation of OpenGL programming. Student must take CISP 62, a concurrent lecture co-requisite.

- **CISS 11 — Practical Computer Security**
  - 2 Units

  27 hours lecture
  - 27 hours lab
  - Advisory: CISS 11

  Introductory course in computer security. Provides awareness for all computer users to protect user accounts and computer systems from attacks. Projects illustrate security software and hardware configuration.

- **CISS 13 — Principles of Information Systems Security**
  - 4 Units

  72 hours lecture
  - Advisory: CISS 11 AND CISS 11

  Certified Information Systems Security Professional (CISSP) exam course preparation including legal, business, and ethical topics.

- **CISS 15 — Operating Systems Security**
  - 3 Units

  54 hours lecture
  - Advisory: CISS 11 or CISS 21

  Operating systems security concepts and techniques: covers how attackers operate, how viruses strike, strengthening operating systems, repelling attacks, and applying security techniques to different operating systems like Windows, Unix, Linux, etc.

- **CISS 21 — Network Vulnerabilities and Countermeasures**
  - 3 Units

  54 hours lecture
  - Corequisite: CISS 21L
  - Advisory: CISS 11 or CISS 24 or CISS 51

  Network vulnerabilities from a hacker’s perspective. Cyber security legal and ethical issues. Written security, use policy, and instance response policy. Scanning and penetration tests, vulnerability assessments and countermeasures for Windows and Linux operating systems. Secure programming, virtual private network (VPN), cryptography, wireless, Web, and remote access securities. Student must be enrolled in CISS 21L, a concurrent lab co-requisite.
**COURSE DESCRIPTIONS**

**CISS 25 — Network Security and Firewalls**  3 Units  
Degree Applicable, CSU  
54 hours lecture  
Corequisite: CISS 25L  
Advisory: (CISN 11 and CISN 11L) or (CISN 24 and CISN 24L) or (CISN 51 and CISN 51L)  
Design, configure, and implement firewalls to secure enterprise, medium, and small businesses networks. Cisco Adaptive Security Appliance (ASA) with intrusion prevention system (IPS) and Linux firewall with IPS integration. Site to site and remote client Virtual Private Network (VPN), Access Control Lists (ACL), content filtering, Confidentiality Integrity Availability (CIA), Radius, and Certificate Authentication (CA). Cisco ASA and Linux firewall troubleshooting technique. Student must enroll in CISS 25L concurrently.

**CISS 25L — Network Security and Firewalls Laboratory** .5 Unit  
Degree Applicable, CSU  
27 hours lab  
Corequisite: CISS 25  
Laboratory to design, configure, and implement firewall to secure enterprise, medium, and small businesses networks. Cisco Adaptive Security Appliance (ASA) with intrusion prevention system (IPS) and Linux firewall with IPS integration. Site to site and remote client Virtual Private Network (VPN), Access Control Lists (ACL), content filtering, Confidentiality Integrity Availability (CIA), Radius, and Certificate Authentication (CA). Cisco ASA and Linux firewall troubleshooting technique. Student must enroll in CISS 25, a concurrent lecture co-requisite.

**CISS 27 — Defending Computer Systems**  1 Unit  
Degree Applicable  
54 hours lab  
Advisories: CISN 11, CISS 21, CISS 23, CISS 25  
Team-oriented practice installing and setting-up security in computer and network systems. Includes hands-on activities defending, responding, mitigating, and analyzing security attacks along with preparing written reports documenting how the system was defended.

**CISS 29 — CNASM Service Learning**  1 Unit  
Degree Applicable, CSU  
(May be taken for option of letter grade or Pass/No Pass)  
54 hours lab  
Integrate knowledge learned from Computer Network Administration and Security Management courses through lab activities and community service.

**COMPUTER INFORMATION SYSTEMS: WEB APPLICATIONS**

**CISS 15 — Web Site Development**  3.5 Units  
Degree Applicable, CSU  
54 hours lecture  
Advisory: CISN 10 or CISS 15  
Plan, develop, implement, publish and maintain Web sites with a professional visual Web-authoring application, including working with text and images, internal and external hyperlinks, image maps, tables, Cascading Style Sheets (CSS), Web page content, Web forms, multimedia objects (Flash text, Flash buttons, sounds, and video), interactions and behaviors, and Web page templates. Principles of Web site structures, documentation, management, and maintenance will be discussed.

**CISS 16 — Secure Web Programming with ASP.NET**  3 Units  
Degree Applicable, CSU  
54 hours lecture  
Corequisite: CISS 16L  
Advisory: CISS 15 or CISS 16  
Plan, develop, implement, publish and maintain Web sites with a professional visual Web-authoring application, including working with text and images, internal and external hyperlinks, image maps, tables, Cascading Style Sheets (CSS), Web page content, Web forms, multimedia objects (Flash text, Flash buttons, sounds, and video), interactions and behaviors, and Web page templates. Principles of Web site structures, documentation, management, and maintenance will be discussed.

**CISS 21 — Secure Web Programming with ASP.NET**  3 Units  
Degree Applicable, CSU  
54 hours lecture  
Corequisite: CISW 21L  
Advisory: CISS 15  
Secure Web programming using programming, scripting and markup languages such as XML (eXtensible Markup Language), XHTML (XML HyperText Markup Language), Dynamic HTML, Javascript, AJAX (Asynchronous Javascript and XML), and ASP.NET (Active Server Pages .NET) with VB.NET (Visual Basic .NET) for designing user interfaces, processing user input, and accessing Web servers and databases. Student must be enrolled in CISW 21L, a concurrent lab co-requisite.

**CISS 21L — Secure Web Programming with ASP.NET Laboratory** .5 Unit  
Degree Applicable, CSU  
27 hours lab  
Corequisite: CISW 21  
Laboratory for secure Web programming using programming, scripting and markup languages such as XML (eXtensible Markup Language), XHTML (XML HyperText Markup Language), Dynamic HTML, Javascript, AJAX (Asynchronous Javascript and XML), and ASP.NET (Active Server Pages .NET) with VB.NET (Visual Basic .NET) for designing user interfaces, processing user input, and accessing Web servers and databases. Student must be enrolled in CISW 21L, a concurrent lab co-requisite.

**CISS 24 — Secure Server Side Web Programming**  3 Units  
Degree Applicable  
54 hours lecture  
Corequisite: CISS 24L  
Advisory: CISW 24 or CISS 24  
Secure web programming to create user interfaces, extract information and manage databases, manage files, format reports, and access web servers by using Practical Extraction and Reporting Language (PERL), Python, Ruby or any Web scripting or programming language. Student must be enrolled in CISW 24L, a concurrent lecture co-requisite.

**CISS 24L — Secure Server Side Web Programming Laboratory** .5 Unit  
Degree Applicable  
27 hours lab  
Corequisite: CISS 24  
Laboratory for secure web programming to create user interfaces, extract information and manage databases, manage files, format reports, and access web servers by using Practical Extraction and Reporting Language (PERL), Python, Ruby or any Web scripting or programming language. Student must be enrolled in CISW 24L, a concurrent lecture co-requisite.

**CISS 29 — CNASM Service Learning**  1 Unit  
Degree Applicable, CSU  
(May be taken for option of letter grade or Pass/No Pass)  
54 hours lab  
Integrate knowledge learned from Computer Network Administration and Security Management courses through lab activities and community service.

**CISS 31 — Secure Web Servers**  3 Units  
Degree Applicable  
54 hours lecture  
Corequisite: CISW 31L  
Advisory: (CISN 34 and CISN 34L) or (CISW 24 and CISW 24L)  
Plan, install, and manage secure Apache Web servers using server side programming language like PHP (PHP: Hypertext Preprocessor) to access, manage, and secure MySQL databases. Student must be enrolled in CISW 31L, a concurrent lab co-requisite.

**CISS 31L — Secure Web Servers Laboratory** .5 Unit  
Degree Applicable  
27 hours lab  
Corequisite: CISW 31  
Laboratory for secure Web servers using server side programming language like PHP (PHP: Hypertext Preprocessor) to access, manage, and secure MySQL databases. Student must be enrolled in CISW 31, a concurrent lecture co-requisite.

**CISS 32 — Secure Web Applications**  3 Units  
Degree Applicable  
54 hours lecture  
Corequisite: CISS 32L  
Advisory: CISS 32  
Secure Web applications using server side programming language like PHP (PHP: Hypertext Preprocessor) to access, manage, and secure MySQL databases. Student must be enrolled in CISW 32L, a concurrent lab co-requisite.

**CISS 32L — Secure Web Applications Laboratory** .5 Unit  
Degree Applicable  
27 hours lab  
Corequisite: CISS 32  
Laboratory for secure Web applications using server side programming language like PHP (PHP: Hypertext Preprocessor) to access, manage, and secure MySQL databases. Student must be enrolled in CISW 32, a concurrent lecture co-requisite.

**CISS 41 — XML Secure Programming**  3 Units  
Degree Applicable  
54 hours lecture  
Corequisite: CISS 41  
Advisory: CISS 41  
Principles, components and benefits of the Extensible Markup Language (XML), including concepts of XPointers, XLink, and XSLT. Apply secure XML programming using DOM and SAX and standards such as canonicalization, signatures and encryption.
CSCI 110 — Fundamentals of Computer Science 3.5 Units

54 hours lecture
27 hours lab
Prerequisite: MATH 71 or MATH 71B or MATH 71X
Advisory: Eligibility for ENGL 1A

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 (C-ID COMP 122)

54 hours lecture
54 hours lab
Prerequisite: CSCI 110

For computer science, mathematics, engineering and other science students. 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, Data structures in C++, string processing and recursion.

CSCI 145 — Java Language and Object Oriented Programming 4 Units

54 hours lecture
54 hours lab
Prerequisite: CSCI 110

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 3.5 Units

54 hours lecture
27 hours lab
Prerequisite: CSCI 110

For computer science, mathematics, engineering and other science students. 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.

CSCI 150L — Assembly Language Laboratory 1 Unit

(May be taken for Pass/No Pass only)

Corequisite: CSCI 150

An independent study program designed to complement the lecture material in CSCI 150, Development/debugging of assembly language programs.

CSCI 170 — Introduction to Unix Operating System 3.5 Units

54 hours lecture
27 hours lab
Prerequisite: CSCI 110

For computer science, mathematics, engineering and other science students. 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.

CSCI 170L — Introduction to Unix Operating System Laboratory 1 Unit

(May be taken for Pass/No Pass only)

Corequisite: CSCI 170

An independent study program designed to complement the lecture material in CSCI 170, Development/debugging of assembly language programs.

CSCI 190 — Discrete Mathematics Applied to Computer Science 4 Units

72 hours lecture
Prerequisite: MATH 71 or equivalent

A study of set theory, propositional and predicate calculus, modular arithmetic, counting techniques, combinatorics, mathematical induction, recursion, binary search trees, graphs and finite probability. For students in computer science, engineering, mathematics and other sciences.

CSCI 155 — C++ Language and Object Development 4 Units

54 hours lecture
54 hours lab
Prerequisite: CSCI 110

For computer science, mathematics, engineering and other science students. 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, Data structures in C++, string processing and recursion.

CSCI 220 — Data Structures I 3.5 Units

54 hours lecture
27 hours lab
Prerequisite: CSCI 140 or CSCI 145

Organize 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 220L — Data Structures I Laboratory 1 Unit

(May be taken for Pass/No Pass only)

Corequisite: CSCI 220

An independent study program designed to complement the lecture material presented in CSCI 220, Data Structures I. Hands-on computer work on topics including abstract data types, running time analysis tools, linear data structures, linked lists, trees, binary search trees, heaps, and priority queues. Many procedures are discussed using an algorithmic language and selected problems are programmed in a higher level language.

CSCI 230 — Data Structures II 3.5 Units

54 hours lecture
27 hours lab
Prerequisite: CSCI 220

Basic searching/sorting algorithms, hashing, graphs, memory/disk management, indexing, B-trees, advanced tree structures and analysis.

CSCI 230L — Data Structures II Laboratory 1 Unit

(May be taken for Pass/No Pass only)

Corequisite: CSCI 230

An independent study program designed to complement the lecture material presented in CSCI 230, Data Structures II. Hands-on computer work will include problem solving in basic searching/sorting algorithms, hashing, graphs, memory/disk management, indexing, B-trees, advanced tree structures and analysis.

CNET 50 — PC Servicing 4 Units

54 hours lecture
54 hours lab
Advisory: ELEC 50A and ELEC 50B taken prior or concurrently

PC and peripheral servicing techniques, preventative maintenance, hardware configurations, software configurations, software diagnostics, and the use of test equipment.
## Course Descriptions

<table>
<thead>
<tr>
<th>Course Title</th>
<th>Units</th>
<th>Degree Applicable</th>
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</thead>
<tbody>
<tr>
<td><strong>CNET 52 — PC Operating Systems</strong></td>
<td>4</td>
<td>Degree Applicable</td>
</tr>
<tr>
<td>54 hours lecture</td>
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<tr>
<td><em>Advisory: CNET 50 taken prior</em></td>
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<tr>
<td>Current operating systems required for A+ and Network+ Certification. Includes identification of major components, installation, configuration, upgrading and troubleshooting.</td>
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<td></td>
</tr>
</tbody>
</table>

| **CNET 54 — PC Troubleshooting** | 4 | Degree Applicable |
| 54 hours lecture |
| *Advisory: CNET 50 taken prior* |
| Personal computer (PC) 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 | Degree Applicable |
| 54 hours lecture |
| *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 certifications. |

| **CNET 58 — Server Systems** | 3 | Degree Applicable |
| 36 hours lecture |
| *Advisory: CNET 58* |
| Server installation, configuration, and management. Includes hardware and software components, virtual server configurations, troubleshooting techniques using flow charts and diagnostic tools, and disaster recovery concepts. Emphasis on hardware components. Covers the core material needed for the Server+ Certification. |

| **CNET 60 — A+ Certification Preparation** | 2 | Degree Applicable |
| 36 hours lecture |
| *Advisory: CNET 54* |
| Prepares the student and qualified computer technician for the A+ certification examination. All aspects of the A+ Essentials and A+ Practical Application test modules will be stressed through both lecture review and test simulation software. |

| **CNET 62 — Network+ Certification Preparation** | 2 | Degree Applicable |
| 36 hours lecture |
| *Advisory: CNET 58* |
| 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** | 2 | Degree Applicable |
| 36 hours lecture |
| *Advisory: CNET 58* |
| Prepares the computer/network service technician for the CompTIA Server+ certification examination. |

| **CNET 66 — Security + Certification Preparation** | 2 | Degree Applicable |
| 36 hours lecture |
| *Advisory: CNET 54 and CNET 56 taken prior* |
| Prepares the computer/network service technician for the CompTIA sponsored Security+ Certification examination. Security information is covered only as it pertains to enabling the service technician to troubleshoot a computer system that may have a security problem. |

| **CORS 10 — Introduction to Correctional Sciences** | 3 | Degree Applicable, CSU |
| 54 hours lecture |
| The field of corrections: county jail, probation, the California Youth Authority and the Department of Corrections as members of the Criminal Justice System. Includes philosophy, past and present practices and the criminal justice and correctional processes. |

| **CORS 15 — Control and Supervision of the Offender** | 3 | Degree Applicable |
| 54 hours lecture |
| Examine methods of controlling and supervising inmates. Emphasizes California’s methods in rapidly-expanding institutions. Students will visit an offsite facility. |

| **CORS 20 — Correctional Law** | 3 | Degree Applicable |
| 54 hours lecture |
| Legal and due process rights for inmates. Inmate rights vs. needs of society. State, federal, and appellate court decisions. |

| **CORS 25 — Probation and Parole** | 3 | Degree Applicable |
| 54 hours lecture |
| Historical development of probation and parole with emphasis on current California programs. Defines the roles of courts, parole boards and the duties and responsibilities of the staff of probation and parole agencies. |

| **CORS 30 — Ethnic Relations in Corrections** | 3 | Degree Applicable |
| 54 hours lecture |
| Historical survey of racial, cultural, and gender biases in the American corrections system. Impact of cultural, racial and gender differences on correctional staff and client interaction. |

| **CORS 35 — Interviewing and Counseling in Corrections** | 3 | Degree Applicable |
| 54 hours lecture |
| Techniques of interviewing and counseling in the field of corrections with emphasis on practical application. Needs of client and agency will be stressed. |

| **CORS 40 — Crime and Delinquency** | 3 | Degree Applicable |
| 54 hours lecture |
| Criminology theories, criminal offender traits, crime prevention strategies, juvenile delinquency, and the impact of crime on society. |

| **CORS 45 — The Violent Offender** | 3 | Degree Applicable |
| 54 hours lecture |
| Violent crimes of felony assault, robbery, rape, the various types of homicide, and the characteristics of both the offender and the victim. |

| **COUN 1 — Introduction to College** | 1 | Degree Applicable, CSU, UC |
| (May be taken for Pass/No Pass only) |
| 18 hours lecture |
| Higher education and the college experience including orientation to college life and higher education resources. Explores graduation, transfer, career options, factors in educational decision making, and educational planning. |

| **COUN 1H — Introduction to College - Honors** | 1 | Degree Applicable, CSU |
| 18 hours lecture |
| Prerequisite: Acceptance into Honors Program. |
| Higher education and the college experience. Orientation to college life and resources. Explores graduation, transfer, career options, factors in educational decision making and educational planning. |
Degree Applicable, CSU

Exploration of transfer requirements, admission procedures and financial aid and other transitional issues to enable students to make informed choices on majors, four-year institutions and academic planning. Field trips are required.

Prerequisite: Eligibility for ENGL 68

Explores and develops strategies and techniques to be an effective college student including time management, study skills, college resources, decision making, goal setting, career exploration and educational planning.

Prerequisite: Eligibility for ENGL 68

Introduces the experienced dance student to the performance aspect of ballet. Includes advanced barre work, center work, floor progressions and performance of classical ballet variations.

Prerequisite: DNCE 12A or DNCE 12B or DNCE 13

Designed for the experienced dancer to learn the techniques of choreography, forms and compositional design.

Prerequisite: DNCE 10A

Fundamentals of music, dance positions, dance formations and choreography to be used in the study of, but not limited to Swing, Salsa, Waltz, Foxtrot and Tango. Off-campus assignment may be required.

Advanced social dance techniques. Improve fundamentals of social dance technique. Improve fundamentals of music, dance positions, dance formations and choreography to be used in the study of, but not limited to Swing, Salsa, Waltz, Foxtrot and Tango. Off-campus assignment may be required.

Basic vocabulary, technique, and movement combinations for ballet. Includes intermediate barre work, demi-point work, use of épaulement and increasingly difficult center floor combinations. Students who repeat this course will improve proficiency through continued instruction and practice.

Intermediate technique, vocabulary and movement combinations for ballet. Includes intermediate barre work, demi-pointe work, use of épaulement and increasingly difficult center floor combinations. Students who repeat this course will improve proficiency through continued instruction and practice.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Degree Applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>DNCE 13</td>
<td>Modern Performance</td>
<td>.5 to 2</td>
<td>CSU, UC</td>
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<td></td>
<td>(May be taken four times for credit)</td>
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<td>(May be taken for option of letter grade or Pass/No Pass)</td>
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<td></td>
<td>36 to 108 hours lab</td>
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<td></td>
<td>The experienced dancer studies the performance aspects of modern dance including advanced technique, choreographic elements and performance. Students who repeat this course will improve proficiency through continued instruction and practice.</td>
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<tr>
<td>DNCE 14A</td>
<td>Jazz I</td>
<td>.5 to 1</td>
<td>CSU, UC</td>
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<td>(May be taken for option of letter grade or Pass/No Pass)</td>
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<tr>
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<td>36 to 54 hours lab</td>
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<td>Beginning vocabulary, technique, and movement combinations for jazz dance. Includes warm-up, progressions and center floor routines.</td>
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<tr>
<td>DNCE 14B</td>
<td>Jazz II</td>
<td>.5 to 1</td>
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<td>(May be taken for option of letter grade or Pass/No Pass)</td>
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<td></td>
<td>36 to 54 hours lab</td>
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<td></td>
<td>Intermediate vocabulary, technique, and movement combinations for jazz dance. Includes warm-up, progressions and center floor routines.</td>
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<tr>
<td>DNCE 15</td>
<td>Jazz Performance</td>
<td>.5 to 1</td>
<td>CSU, UC</td>
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<td>(May be taken for option of letter grade or Pass/No Pass)</td>
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<td>36 to 54 hours lab</td>
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<td></td>
<td>Introduces the experienced dancer to the performance styles and techniques of jazz dance. Includes advanced warm-up, floor progressions and performance of complex jazz dance routines.</td>
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<tr>
<td>DNCE 17</td>
<td>Jazz Fundamentals</td>
<td>.5 to 2</td>
<td>CSU, UC</td>
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<td>(May be taken for option of letter grade or Pass/No Pass)</td>
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<td>36 to 108 hours lab</td>
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<tr>
<td></td>
<td>Introduces fundamental vocabulary, technique, and movement combinations for jazz dance. Includes floor work, center work, floor progressions, routines and musicality and phrasing.</td>
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<tr>
<td>DNCE 18A</td>
<td>Tap I</td>
<td>.5 to 1</td>
<td>CSU, UC</td>
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<td>(May be taken for option of letter grade or Pass/No Pass)</td>
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<td>36 to 54 hours lab</td>
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<td></td>
<td>Beginning level technique, rhythms and routines for tap dance.</td>
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<tr>
<td>DNCE 18B</td>
<td>Tap II</td>
<td>.5 to 1</td>
<td>CSU, UC</td>
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<td>(May be taken for option of letter grade or Pass/No Pass)</td>
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<td></td>
<td>36 to 54 hours lab</td>
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<tr>
<td></td>
<td>Intermediate technique, rhythms and routines for tap dance.</td>
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<tr>
<td>DNCE 19</td>
<td>Tap Performance</td>
<td>.5 to 1</td>
<td>CSU, UC</td>
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<td>(May be taken for option of letter grade or Pass/No Pass)</td>
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<td>36 to 54 hours lab</td>
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<td>Introduces the experienced dancer to the performance aspects of tap by providing advanced techniques leading to the performance of compositions. Students who repeat this course will improve skills through further instruction and practice.</td>
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<tr>
<td>DNCE 22</td>
<td>Dance Rehearsal</td>
<td>.5 to 1</td>
<td>CSU, UC</td>
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<td>(May be taken for option of letter grade or Pass/No Pass)</td>
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<td>36 to 54 hours lab</td>
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<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>
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<tr>
<td>DNCE 24</td>
<td>Dance Production</td>
<td>1 to 2</td>
<td>CSU, UC</td>
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<td>(May be taken for option of letter grade or Pass/No Pass)</td>
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<td>54 to 108 hours lab</td>
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<td></td>
<td>Provides the intermediate to advanced jazz dancer the opportunity to experience the different techniques of leading commercial dancers, teachers and choreographers. Students who repeat this course will improve skills through further instruction and practice.</td>
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<td>DNCE 25</td>
<td>Theater Dance I</td>
<td>.5 to 1</td>
<td>CSU, UC</td>
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<td>(May be taken for option of letter grade or Pass/No Pass)</td>
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<td>36 to 54 hours lab</td>
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<td>Simple dance excerpts from various theater musicals and/or movies. Includes concepts of acting and staging incorporated with musical theatre choreography.</td>
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<td>DNCE 26</td>
<td>Theater Dance II</td>
<td>.5 to 1</td>
<td>CSU, UC</td>
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<td>(May be taken for option of letter grade or Pass/No Pass)</td>
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<td></td>
<td>36 to 54 hours lab</td>
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<td>Provides the intermediate or advanced student the practical experience to assist an instructor in the creation and instruction of a dance class.</td>
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<tr>
<td>DNCE 29</td>
<td>Contemporary Dance</td>
<td>.5 to 1</td>
<td>CSU, UC</td>
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<td>(May be taken for option of letter grade or Pass/No Pass)</td>
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<td></td>
<td>36 to 54 hours lab</td>
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<td></td>
<td>Opportunity for the beginning to advanced dancer to experience different techniques of leading contemporary dancers and choreographers.</td>
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<tr>
<td>DNCE 30</td>
<td>Classical Dance</td>
<td>.5 to 2</td>
<td>CSU, UC</td>
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<td>(May be taken for option of letter grade or Pass/No Pass)</td>
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<td></td>
<td>38 to 108 hours lab</td>
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<td>Advanced ballet repertoire focusing on the different schools of technique including Balanchine, Bouronville, and Vaganova.</td>
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<tr>
<td>DNCE 32</td>
<td>Commercial Dance</td>
<td>.5 to 1</td>
<td>CSU, UC</td>
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<td>(May be taken for option of letter grade or Pass/No Pass)</td>
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<td>38 to 54 hours lab</td>
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<td></td>
<td>Provides the intermediate to advanced jazz dancer the opportunity to experience the different techniques of leading commercial dancers, teachers and choreographers. Students who repeat this course will improve skills through further instruction and practice.</td>
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<tr>
<td>DNCE 33</td>
<td>Improvisation</td>
<td>.5 to 1</td>
<td>CSU, UC</td>
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<td>(May be taken for option of letter grade or Pass/No Pass)</td>
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<td>36 to 54 hours lab</td>
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<td>Improvisation in dance and choreography. For all levels of dance. Students who repeat this course will improve proficiency through continued instruction and practice.</td>
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<tr>
<td>DNCE 34</td>
<td>Dance Directives</td>
<td>.5 to 1</td>
<td>CSU, UC</td>
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<td></td>
<td>(May be taken for option of letter grade or Pass/No Pass)</td>
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<tr>
<td></td>
<td>36 to 54 hours lab</td>
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<td></td>
<td>Provides the intermediate or advanced student the practical experience to assist an instructor in the creation and instruction of a dance class.</td>
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<tr>
<td>DNCE 35</td>
<td>Repertory</td>
<td>2</td>
<td>CSU, UC</td>
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<tr>
<td></td>
<td>(May be taken for option of letter grade or Pass/No Pass)</td>
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<td></td>
<td>108 hours lab</td>
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<td></td>
<td>Provides the opportunity for the advanced dancer to learn choreography and to perform repertory pieces at workshops and special events. Students who repeat this course will improve skills through further instruction and practice.</td>
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<tr>
<td>DNCE 39A</td>
<td>Alignment and Correctives I</td>
<td>.5 to 1</td>
<td>CSU, UC</td>
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<td></td>
<td>(May be taken for option of letter grade or Pass/No Pass)</td>
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<tr>
<td></td>
<td>36 to 54 hours lab</td>
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<tr>
<td></td>
<td>Pilates method of conditioning. Includes mat-work, Reformer and special conditioning exercises and body awareness resulting in improved alignment, strength, flexibility, control, coordination and breathing.</td>
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<tr>
<td>Course Code</td>
<td>Course Name</td>
<td>Units</td>
<td>Prerequisites</td>
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<tr>
<td>DNCE 39B</td>
<td>Alignment and Correctives II</td>
<td>0.5</td>
<td>Degree Applicable, CSU, UC</td>
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<tr>
<td></td>
<td>(May be taken for option of letter grade or Pass/No Pass)</td>
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<tr>
<td></td>
<td>36 to 54 hours lab</td>
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<td></td>
<td>Advisory: DNCE 39A</td>
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<tr>
<td></td>
<td>Pilates method of conditioning. Intermediate mat-work, Reformer and basic Wunda Chair repertoire focusing on developing improved body alignment, strength, flexibility and control.</td>
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</tr>
<tr>
<td>DNCE 40</td>
<td>Conditioning Through Dance</td>
<td>0.5</td>
<td>Degree Applicable, CSU, UC</td>
</tr>
<tr>
<td></td>
<td>(May be taken for option of letter grade or Pass/No Pass)</td>
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<tr>
<td></td>
<td>36 to 54 hours lab</td>
<td></td>
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<tr>
<td></td>
<td>Improves fitness through the coordination of dance exercises. Focuses on strength, flexibility and range of motion. Designed for the dancer and non-dancer.</td>
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<tr>
<td>DNCE 41</td>
<td>Pilates I</td>
<td>0.5</td>
<td>Degree Applicable, CSU, UC</td>
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<td></td>
<td>(May be taken for option of letter grade or Pass/No Pass)</td>
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<tr>
<td></td>
<td>36 to 54 hours lab</td>
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<td></td>
<td>Advisory: DNCE 39A</td>
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<tr>
<td></td>
<td>Pilates beginning and intermediate Mat work and beginning Reformer. Includes Pilates stick and the Magic Circle.</td>
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<tr>
<td>DNCE 42</td>
<td>Pilates II</td>
<td>0.5</td>
<td>Degree Applicable, CSU, UC</td>
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<td>(May be taken for option of letter grade or Pass/No Pass)</td>
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<tr>
<td></td>
<td>36 to 54 hours lab</td>
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<td></td>
<td>Advisory: DNCE 41</td>
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<tr>
<td></td>
<td>Pilates intermediate mat, Reformer and Pilates stick. Beginning Wunda Chair, Step Barrel and Ped-a-Pul. Includes use of physio-ball in Mat work.</td>
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<tr>
<td>DNCE 43</td>
<td>Pilates III</td>
<td>0.5</td>
<td>Degree Applicable, CSU, UC</td>
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<tr>
<td></td>
<td>36 hours lab</td>
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<tr>
<td></td>
<td>Prerequisite: DNCE 42</td>
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<tr>
<td></td>
<td>Pilates intermediate mat, Reformer and Pilates stick. Beginning Wunda Chair, Step Barrel and Ped-a-Pul. Includes use of physio-ball in Mat work.</td>
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<tr>
<td>DN-T 18</td>
<td>Introduction to Dance</td>
<td>3</td>
<td>Degree Applicable, CSU, UC</td>
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<tr>
<td></td>
<td>54 hours lecture</td>
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<td></td>
<td>Advisory: Eligibility for ENGL 68</td>
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<tr>
<td></td>
<td>A survey of the profession of dance and its various art forms through lecture, discussion, demonstration, and participation. Includes multi-cultural dance interpretations.</td>
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<tr>
<td>DN-T 20</td>
<td>History and Appreciation of Dance</td>
<td>3</td>
<td>Degree Applicable, CSU, UC</td>
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<tr>
<td></td>
<td>54 hours lecture</td>
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<td></td>
<td>Advisory: Eligibility for ENGL 68</td>
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<tr>
<td></td>
<td>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 to include discussion of the influence of theatrical dance on other art forms.</td>
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<tr>
<td>DN-T 27</td>
<td>Theory and Principles of Pilates</td>
<td>3</td>
<td>Degree Applicable, CSU, UC</td>
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<tr>
<td></td>
<td>54 hours lecture</td>
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<tr>
<td></td>
<td>Prerequisite: DNCE 39A</td>
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<tr>
<td></td>
<td>Teaching skills for the pilates method of physical and mental conditioning. Concepts and principles as applied to the mat and apparatus repertoire.</td>
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<tr>
<td>DN-T 28</td>
<td>Functional Anatomy for Pilates</td>
<td>2</td>
<td>Degree Applicable, CSU, UC</td>
</tr>
<tr>
<td></td>
<td>36 hours lecture</td>
<td></td>
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<tr>
<td></td>
<td>Functional human anatomy as applied to the Pilates method of conditioning.</td>
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<tr>
<td>DN-T 29</td>
<td>Teaching Pilates Mat Repertoire</td>
<td>1.5</td>
<td>Degree Applicable, CSU, UC</td>
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<tr>
<td></td>
<td>18 hours lecture</td>
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<tr>
<td></td>
<td>Prerequisite: DNCE 30</td>
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<td></td>
<td>Learning to teach the Pilates mat exercises and principles. Includes basic, intermediate and advanced levels focusing on pedagogy and the development of correct neuromuscular patterning.</td>
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<tr>
<td>DN-T 30</td>
<td>Teaching Pilates Reformer Repertoire</td>
<td>1.5</td>
<td>Degree Applicable, CSU, UC</td>
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<tr>
<td></td>
<td>18 hours lecture</td>
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<tr>
<td></td>
<td>Prerequisite: DNCE 29</td>
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<tr>
<td></td>
<td>Learning to teach the Pilates Reformer exercises and principles. All levels are covered with a focus on the development of correct neuromuscular patterning.</td>
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<tr>
<td>DN-T 31</td>
<td>Pilates Teaching-Mat and Reformer</td>
<td>3</td>
<td>Degree Applicable, CSU, UC</td>
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<tr>
<td></td>
<td>18 hours lecture</td>
<td></td>
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<tr>
<td></td>
<td>Prerequisite: DNCE 28 and DN-T 30</td>
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<tr>
<td></td>
<td>Preparing students to teach Pilates in a variety of settings and situations. Teaching reinforces knowledge and understanding of the Pilates exercises and concepts. Includes lecture, observation, self-integration, assistant teaching and one-on-one teaching. Off-campus observations may be required.</td>
<td></td>
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<tr>
<td>DN-T 32</td>
<td>Teaching Pilates Cadillac and Wunda</td>
<td>1.5</td>
<td>Degree Applicable, CSU, UC</td>
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<tr>
<td></td>
<td>Chair Repertoire</td>
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<td></td>
<td>18 hours lecture</td>
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<tr>
<td></td>
<td>Prerequisite: DN-T 27 and DN-T 29 and DN-T 30</td>
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<tr>
<td></td>
<td>Learning to teach the Pilates repertoire of exercises on the Cadillac and Wunda Chair. All levels are covered with a focus on the development of correct neuromuscular patterning.</td>
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<tr>
<td>DN-T 33</td>
<td>Teaching Pilates Ped-a-Pul, Barrels</td>
<td>1.5</td>
<td>Degree Applicable, CSU, UC</td>
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<tr>
<td></td>
<td>and Auxiliary Equipment</td>
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<tr>
<td></td>
<td>18 hours lecture</td>
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<tr>
<td></td>
<td>Prerequisite: DN-T 30 and DN-T 32</td>
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<tr>
<td></td>
<td>Learning to teach Pilates exercises on the following apparatus: Ped-a-Pul, Ladder Barrel, Step Barrel, Arc Barrel, Magic Circle, C-cushion and props. All levels are covered with a focus on the development of correct neuromuscular patterning.</td>
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</tr>
<tr>
<td>DN-T 34</td>
<td>Pilates Teaching-Cadillac, Wunda Chair</td>
<td>3</td>
<td>Degree Applicable, CSU, UC</td>
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<tr>
<td></td>
<td>and Auxiliary Equipment</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>18 hours lecture</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>108 hours lab</td>
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<tr>
<td></td>
<td>Prerequisite: DN-T 33</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>Preparing students to teach Pilates in a variety of settings and situations. Teaching reinforces knowledge and understanding of the Pilates exercises and concepts. Includes lecture, observation, self-integration, assistant teaching and one-on-one teaching. Off-campus observations may be required.</td>
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<tr>
<td>DN-T 35</td>
<td>Dance Teaching Methods</td>
<td>3</td>
<td>Degree Applicable, CSU, UC</td>
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<tr>
<td></td>
<td>36 hours lecture</td>
<td></td>
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<tr>
<td></td>
<td>Prerequisite: DNCE 2B or DNCE 12B or DNCE 14B</td>
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<td></td>
<td>The application of pedagogical methods in Dance. Explores teaching strategies, imagery, motivational techniques, music for class instruction, and injury prevention. Focus is on the genres of Ballet, Jazz and Modern Dance. Course will involve on- and off-campus dance teaching observations.</td>
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</tr>
</tbody>
</table>
### Course Descriptions

#### DISABED STUDENTS

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Degree Applicable</th>
<th>Prerequisites</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>DSPS 10</td>
<td>College Success Strategies for Students with Disabilities</td>
<td>3</td>
<td>Not Degree Applicable</td>
<td>(May be taken for option of letter grade or Pass/No Pass)</td>
<td>18</td>
</tr>
<tr>
<td>DSPS 12</td>
<td>Career Exploration and Planning for Students with Disabilities</td>
<td>3</td>
<td>Not Degree Applicable</td>
<td>(May be taken for Pass/No Pass only)</td>
<td>18</td>
</tr>
<tr>
<td>DSPS 13</td>
<td>Orientation to College for Students with Disabilities</td>
<td>1</td>
<td>Not Degree Applicable</td>
<td>(May be taken for option of letter grade or Pass/No Pass)</td>
<td>18</td>
</tr>
<tr>
<td>DSPS 15</td>
<td>Career Exploration for Students with Disabilities</td>
<td>1</td>
<td>Not Degree Applicable</td>
<td>(May be taken for Pass/No Pass only)</td>
<td>18</td>
</tr>
<tr>
<td>DSPS 20</td>
<td>Improving Spelling and Reading of Words</td>
<td>3</td>
<td>Not Degree Applicable</td>
<td>(May be taken for Pass/No Pass only)</td>
<td>54</td>
</tr>
<tr>
<td>DSPS 25</td>
<td>Language Development for Deaf Students in ASL and English</td>
<td>2</td>
<td>Not Degree Applicable</td>
<td>(May be taken for Pass/No Pass only)</td>
<td>108</td>
</tr>
<tr>
<td>DSPS 26</td>
<td>Language Enhancement for Deaf Students in ASL and English</td>
<td>2</td>
<td>Not Degree Applicable</td>
<td>(May be taken for Pass/No Pass only)</td>
<td>108</td>
</tr>
<tr>
<td>DSPS 30</td>
<td>Academic Success Strategies for Students with Disabilities</td>
<td>1</td>
<td>Not Degree Applicable</td>
<td>(May be taken for Pass/No Pass only)</td>
<td>54</td>
</tr>
<tr>
<td>DSPS 31</td>
<td>Memory Strategies for Students with Disabilities</td>
<td>3</td>
<td>Not Degree Applicable</td>
<td>(May be taken for Pass/No Pass only)</td>
<td>54</td>
</tr>
<tr>
<td>DSPS 32</td>
<td>Technology for Students with Learning Disabilities</td>
<td>3</td>
<td>Not Degree Applicable</td>
<td>(May be taken for Pass/No Pass only)</td>
<td>54</td>
</tr>
<tr>
<td>DSPS 33</td>
<td>Strategies for Success in Math for Students with Disabilities</td>
<td>3</td>
<td>Not Degree Applicable</td>
<td>(May be taken for Pass/No Pass only)</td>
<td>54</td>
</tr>
<tr>
<td>DSPS 34</td>
<td>Writing Strategies for Students with Disabilities</td>
<td>3</td>
<td>Not Degree Applicable</td>
<td>(May be taken for Pass/No Pass only)</td>
<td>54</td>
</tr>
<tr>
<td>EDUC 10</td>
<td>Introduction to Education</td>
<td>3</td>
<td>Degree Applicable, CSU, UC</td>
<td>Prequisite: Eligibility for ENGL 68</td>
<td>54</td>
</tr>
</tbody>
</table>

Advisory: Eligibility for READ 80. Student should have at least one other academic class for application of strategies. Principles of the memory process as it applies to academic coursework. Focuses on the memory process, improving specific memory components, identifying key concepts to memorize, and the independent application of memory strategies to other academic courses.
EDUC 16 — Aspects and Issues in Teaching 3 Units
Degree Applicable, CSU, UC

54 hours lecture
Advisory: Eligibility for ENGL 68
Survey of the teaching profession, including teaching and learning styles, state content standards and testing, recent California and national legislation, social issues, school funding and teacher and student rights and responsibilities. Off-site assignments may be required.

ELEC 10 — Introduction to Mechatronics 2 Units
Not Degree Applicable
18 hours lecture
54 hours lab
An introduction to the field of mechatronics, a combination of conventional electronic technology with mechanical and computer technology. Special emphasis is on robotics. Hands-on activities include the building of a robot.

ELEC 11 — Technical Applications in Microcomputers 3 Units
Degree Applicable, CSU
36 hours lecture
54 hours lab
Personal computer (PC) applications used in electronics technology. Includes word processing, spreadsheets, database, computer presentation methods, and internet research specifically designed for electronics technology.

ELEC 12 — Computer Simulation and Troubleshooting 2 Units
Degree Applicable
18 hours lecture
54 hours lab
Advisory: ELEC 51, ELEC 56 taken prior
Use of the personal computer for simulation and troubleshooting of both analog and digital electronic circuits. Circuit analysis, value substitution, and fault diagnostics will be done with the emphasis on “Electronics Workbench/Multisim” software.

ELEC 50A — Electronic Circuits - Direct Current (DC) 4 Units
Degree Applicable, CSU
54 hours lecture
54 hours lab
Advisory: Eligibility for MATH 51
Direct Current (DC) electrical circuits and their applications. Covers DC sources, analysis, test equipment, measurements, and troubleshooting of resistive devices and other basic components. Includes Ohm’s Law, Kirchhoff’s law, and network theorems. (Students seeking a survey course in electronics should take ELEC 10, Introduction to Mechatronics, rather than ELEC 50A or 50B.)

ELEC 50B — Electronic Circuits (AC) 4 Units
Degree Applicable, CSU
54 hours lecture
54 hours lab
Advisory: ELEC 50A taken prior
Alternating Current (AC) electrical circuits and their applications. Covers AC sources, analysis (using complex numbers), test equipment, measurements, and troubleshooting of basic circuits with capacitors, inductors, and resistors. Includes impedance, resonance, filters, and decibels.

ELEC 51 — Semiconductor Devices and Circuits 4 Units
Degree Applicable, CSU
54 hours lecture
54 hours lab
Advisory: ELEC 50B
Solid-state devices and circuits, including bipolar-junction and field-effect transistors, rectifier diodes, operational amplifiers, and thyristors. Analog circuits studied include discrete and integrated circuit amplifiers, voltage regulators, oscillators and timers. Emphasizes configurations, classes, load lines, characteristic curves, gain, troubleshooting, measurements, and frequency response.

ELEC 52 — Communications Circuits 4 Units
Degree Applicable, CSU
36 hours lecture
54 hours lab
Advisory: ELEC 51 taken prior
Analog and digital communications circuits. Emphasizes analog and digital modulation principles, fiber optics, multiplexing, and telecommunications circuits.

ELEC 53 — Communications Circuits 4 Units
Degree Applicable
54 hours lecture
54 hours lab
Advisory: ELEC 51 taken prior
Analog and digital communications circuits. Emphasizes analog and digital modulation principles, fiber optics, multiplexing, and telecommunications circuits.

ELEC 54A — Industrial Electronics 4 Units
Degree Applicable, CSU
54 hours lecture
54 hours lab
Advisory: ELEC 51 taken prior
Industrial electronic components and basic control circuits. Includes time delay controls, thyristor controls, relays, opto devices, DC and AC motor control, transducers, silicon controlled rectifiers (SCR), and unijunction transistors (UJT) devices.

ELEC 54B — Industrial Electronic Systems 3 Units
Degree Applicable, CSU
36 hours lecture
54 hours lab
Systems application of industrial electronics including industrial production and processes, automation, and programmable and motor controllers. Emphasis is on programmable logic controllers (PLCs).

ELEC 55 — Microwave Communications 4 Units
Degree Applicable, CSU
54 hours lecture
54 hours lab
Advisory: ELEC 50B taken prior
Microwave components and circuits. Stresses transmission lines, Smith Charts, impedance matching, antenna characteristics, wave propagation, frequency analysis and measurement techniques.

ELEC 56 — Digital Electronics 4 Units
Degree Applicable, CSU
54 hours lecture
54 hours lab
Combination 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 61 — Electronic Assembly and Fabrication 3 Units
Degree Applicable, CSU
36 hours lecture
54 hours lab
Advisories: ELEC 50A and ELEC 50B
Assembly and fabrication techniques in basic soldering, desoldering, and surface mount technology (SMT). Construction of coaxial, twisted pair (Ethernet) cabling and connectors. Includes printed circuit board (PCB) layout and design.

ELEC 62 — Advanced Surface Mount Assembly and Rework 2 Units
Degree Applicable
18 hours lecture
54 hours lab
Advisory: ELEC 61
Advanced course in assembly and repair (soldering) on surface mount assemblies (SMT). Prepares for the IPC surface mount assembly and rework certifications.

ELEC 74 — Microcontroller Systems 4 Units
Degree Applicable, CSU
54 hours lecture
54 hours lab
Advisory: ELEC 56 taken prior
Microcontroller systems and programming methods; programmable logic devices (PLDs); serial communications; conversion of signals from analog to digital formats and the converse. Industry applications, interfacing, and troubleshooting.
Course Descriptions

**ELEC 76** — FCC General Radiotelephone Operator 2 Units
Degree Applicable
(May be taken for option of letter grade or Pass/No Pass)
18 hours lecture
54 hours lab
Advisory: ELEC 50A and ELEC 50B
Prepares qualified electronics and aviation technicians for the FCC commercial general radiotelephone operator license (GROL).

**ELEC 81** — Laboratory Studies in Electronics 1 to 2 Units Technology
Degree Applicable
54 to 108 hours lab
Advisory: ELEC 50B taken prior or concurrently
Extended laboratory experience supplementary to that available in the regular program. Allows the student to pursue more advanced and complex laboratory projects and experiments.

**ELEC 91** — Work Experience in Electronics 1 to 4 Units
Degree Applicable
(May be taken for Pass/No Pass only)
75 to 300 hours lab
Prerequisite: Compliance with Work Experience regulations as designated in the College Catalog
Advisory: ELEC 56
Provides actual on-the-job experience in electronics at an approved work site which is related to classroom instruction. A minimum of five hours per week of supervised work (60 non-paid clock hours or 75 paid clock hours per semester) is required for each one unit of credit.

**EST 50** — Electrical Fundamentals for Cable Installations 4 Units
Degree Applicable
54 hours lecture
54 hours lab
Electrical fundamentals for cable and wire installations, and other low voltage systems. Includes DC/AC, solid-state devices, digital and microprocessor devices and their application to cable installations. Prepares students for the California State Contractors C-7 low voltage systems license.

**EST 52** — Fabrication Techniques for Cable Installations 4 Units
Degree Applicable
54 hours lecture
54 hours lab
Fabrication techniques used in the installation of home theater, computer networks, home automation, and other low voltage system applications. Emphasis on hand and power tools, construction methods and materials as they apply to cable and wire installations. Prepares students for the California State Contractors C-7 low voltage systems license.

**EST 54** — Cabling and Wiring Standards 4 Units
Degree Applicable
54 hours lecture
54 hours lab
Advisory: EST 50
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 55** — Home Theater, Home Integration, and Home Security Systems 4 Units
Degree Applicable
54 hours lecture
54 hours lab
Advisory: EST 54
Home theater, home integration, home management Power Line Carriers (PLCs), security hardware and programming, and the installation and servicing of such systems. Prepares students for the California State Contractors C-7 low voltage systems license.

**EST 62** — Electronic Troubleshooting-I 4 Units
Degree Applicable
54 hours lecture
54 hours lab
Advisory: EST 56
Troubleshooting basic electronic circuits and systems to component level. Circuits include: power supplies, amplifiers, audio circuits, home theater audio (Dolby 5.1), and video circuits (analog TV).

**EST 64** — Electronic Troubleshooting - II 4 Units
Degree Applicable
54 hours lecture
54 hours lab
Advisory: EST 62
Troubleshooting advanced electronic video circuits and systems to component level. Includes digital TV and HDTV (plasma, LCD, DLP).

**EMS 1** — Paramedic Fundamentals and Selection 4 Units
Degree Applicable
72 hours lecture
Prerequisite: Completed Paramedic Program application, current California EMT I (Basic) certificate, and 1200 hours employment as an EMT I, Eligibility for ENGL 68, Eligibility for READ 90, and Eligibility for MATH 51
Assessment and review of required Emergency Medical Technician (EMT) competencies as part of the selection process for the Emergency Medical Technician Paramedic (EMT-P) program. Includes current practices, medical terminology, mathematical skills for drug calculations, and applied physiology and anatomy of human body systems.

**EMS 2** — Preparation for Paramedic Program 1 Unit
Not Degree Applicable
(May be taken for Pass/No Pass only)
54 hours lab
Prerequisite: Acceptance into the paramedic programEMS 1
Emergency Medical Technician (EMT)-Basic Skills development and practice for patient assessment and treatment decision-making in preparation for the paramedic program. Focuses on life support, trauma response, and immobilization techniques for healthcare providers. Includes the American Heart Association Healthcare Provider (AHA HCP) Basic Life Support (BLS) skills, Basic Trauma Life Support (BTLS) and the Los Angeles County Emergency Medical Services (EMS) standards and resuscitation policies. Ride-alongs with 911 call response teams are highly recommended.

**EMS 10** — Anatomy and Physiology for Paramedics 3.5 Units
Degree Applicable
61 hours lecture
Prerequisite: Admission to Paramedic Program and EMS 1 and EMS 2
Corequisite: EMS 20, EMS 30, EMS 40, EMS 50, and EMS 60
Gross anatomy and physiology of the human body, with applications to paramedic practices.

**EMS 20** — Emergency Cardiac Care for Paramedics 2 Units
Degree Applicable
18 hours lecture
48 hours lab
Prerequisite: Admission to the Paramedic Program
Corequisite: EMS 10, EMS 30, EMS 40, EMS 50, and EMS 60 (courses may have been taken previously)
Certifies students in Pediatric Advanced Life Support (PALS), and Advanced Cardiac Life Support (ACLS) according to the standards of the American Heart Association (AHA). Enhances advanced assessment and treatment skills according to national and Los Angeles County Treatment Guidelines.
<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Units</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
</table>
| EMS 30 | Pharmacology for Paramedics          | 3     | Degree Applicable | 44 hours lecture  
44 hours lab  
Pre-requisite: Admission to the Paramedic Program  
Corequisite: EMS 10, EMS 20, EMS 40, EMS 50, EMS 60  
Paramedic drugs with emphasis on dosages supplied and ordered, routes of administration, expected therapeutic outcomes and possible adverse reactions. |
| EMS 40 | Cardiology for Paramedics            | 3     | Degree Applicable | 54 hours lecture  
Pre-requisite: Admission to the Paramedic Program  
Corequisite: EMS 10, EMS 20, EMS 30, EMS 50, and EMS 60  
Familiarizes the paramedic with the normal, abnormal, and diseased heart, assessments, assessment tools, interpretation of dysrhythmias, and paramedic interventions. |
| EMS 50 | Paramedic Skills Competency           | 5.5   | Degree Applicable | 67 hours lecture  
80 hours lab  
Pre-requisite: Admission to the Paramedic Program  
Corequisite: EMS 10, EMS 20, EMS 30, EMS 40, and EMS 60  
Paramedic skills required for field operation as a paramedic and for licensing in competency-based exams. |
| EMS 60 | EMS Theory for Paramedics             | 9     | Degree Applicable | 157 hours lecture  
Pre-requisite: Admission to the Paramedic Program  
Corequisite: EMS 10, EMS 20, EMS 30, EMS 40, and EMS 50  
Paramedic theories, principles, and practices including assessment skills, care of the sick and injured at a paramedic level, with applications to anatomy and physiology, pathologic processes, and mechanisms of injury. |
| EMS 70 | Paramedic Clinical Internship         | 4     | Degree Applicable | (May be taken for Pass/No Pass only)  
215 hours lab  
Pre-requisite: EMS 1  
Corequisite: EMS 60 (May have been taken previously.)  
Clinical experience and application of paramedic theory and practice with an emphasis on patient assessment and utilization of paramedic skills in a hospital setting. |
| EMS 80 | Paramedic Field Externship            | 9.5   | Degree Applicable | (May be taken for Pass/No Pass only)  
479 hours lab  
Pre-requisite: EMS 1 and successful completion of Los Angeles County accreditation exam  
Corequisite: EMS 70 (may have been taken previously)  
Application of concepts of paramedic theory and practices, with emphasis on patient assessment and utilization of paramedic skills in a field setting on an operational paramedic unit. |
| EMT 90 | Emergency Medical Technician          | 8     | Degree Applicable | 105 hours lecture  
115 hours lab  
Pre-requisite: EMT 90-A high school graduation or equivalent and minimum of 18 years of age  
Approved by the Los Angeles County and Emergency Medical Services (EMS) Agencies. Develops the ability to recognize the signs and symptoms of various illnesses and injuries. Teaches proper procedures of pre-hospital emergency care per local and national standards. Awards an Emergency Medical Technician (EMT) Course Completion Certificate to take National Registry Certifying Exam. Necessary for many jobs in emergency care and is a prerequisite for entry into a paramedic program and most fire department jobs. |
| EMT 90-A | Introduction to EMT System             | 2     | Not Degree Applicable | (May be taken for option of letter grade or Pass/No Pass)  
24 hours lecture  
20 hours lab  
Pre-requisite: High school graduation or equivalent  
Prerequisite for EMT 90. Introduces concepts of the Emergency Medical Services (EMS) System, roles and responsibilities. Basic concepts of patient assessment and scene management taught. Stresses collaboration with other scene team members. |
| EMT 91 | Emergency Medical Technician I Refresher | 2 | Degree Applicable | 40 hours lecture  
Pre-requisite: Completion of a State or County Department of Health (or out-of-state) approved course and possession of a currently valid EMT-I certificate or one which has expired for no more than 20 months  
Approved by the L.A. County and State Departments of Health. Required of all Emergency Medical Technician - I personnel every two years in order to maintain eligibility for employment in an emergency response agency and to keep certification valid. Course covers all required material and current changes/updates in pre-hospital emergency care at the EMT-I level. |
| EMT 95 | EMT for Fire Technology               | 8     | Degree Applicable | 100 hours lecture  
100 hours lab  
Pre-requisite: Must be at least 18 years old  
Advisory: FIRE 1 AND FIRE 13  
May be taken for Pass/No Pass only  
100 hours lab  
Pre-requisite: Must be at least 18 years old  
Advisory: FIRE 1 AND FIRE 13  
Designed for pre-Fire Academy students, this course is approved by the L.A. County and State EMS Agencies and prepares students to take the National Registry of EMTs certifying exam. Develops knowledge and skills needed for recognition of illnesses and injuries and emphasizes proper pre-hospital emergency care per local and national protocols. |
| ENGR 1 | Introduction to Engineering           | 1     | Degree Applicable, CSU, UC | (May be taken for option of letter grade or Pass/No Pass)  
18 hours lecture  
Engineering and surveying professions including academic requirements, articulation agreements with four-year institutions, transfer, engineering study as a preparation for other careers, and academic and employment strategies. Also includes professional engineering licensure and engineering ethics. Field trips are required. |
| ENGR 8 | Properties of Materials               | 4     | Degree Applicable, CSU, UC | (May be taken for option of letter grade or Pass/No Pass)  
72 hours lecture  
Pre-requisite: CHEM 40 or CHEM 50 and PHYS 4A or PHYS 2AG  
Mechanical, electrical, magnetic, optical and thermal properties of engineering materials and their relation to the materials’ internal structure. Atomic structure and bonding, crystalline structures, phase and phase diagrams, metals; polymers, ceramics, composites, mechanical deformation and fracture, structural control and influence of properties, materials naming and designating systems, corrosion process, lasers, semiconductors and electronic packaging materials. |
| ENGR 18 | Introduction to Engineering Graphics  | 3     | Degree Applicable, CSU | (May be taken for option of letter grade or Pass/No Pass)  
36 hours lecture  
54 hours lab  
Fundamental engineering graphics and problem solving techniques. Skills in freehand and instrument drawing are developed and applied to the solution of problems. Orthographic, isometric and oblique drawings. |
## Course Descriptions

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Description</th>
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<tbody>
<tr>
<td>ENGR 24</td>
<td>Engineering Graphics</td>
<td>4</td>
<td>Degree Applicable, CSU, UC</td>
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<td></td>
<td></td>
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<td>36 hours lecture</td>
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<td>108 hours lab</td>
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<td>Prerequisite: ENGR 18 and eligibility for MATH 51</td>
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<td>Advisory: CISB 15</td>
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<td>Graphical expression through Computer Assisted Drafting (CAD).</td>
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<td>Includes freehand sketching and instrument drawing, orthographic, isometric and oblique drawing with dimensioning and tolerancing. Fasteners, cams, gears, and pipe drawings. Descriptive geometry: points, lines, and planes. Intersections and developments of solids, sheet metal, electrical and civil engineering, and surveying drawings.</td>
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<tr>
<td>ENGR 44</td>
<td>Electrical Engineering</td>
<td>4</td>
<td>Degree Applicable, CSU, UC</td>
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<td>54 hours lecture</td>
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<td>54 hours lab</td>
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<td>Prerequisite: PHYS 4B</td>
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<td>Electrical circuit analysis including applications of Kirchoff’s Laws and Thévenin’s Theorems to DC and AC circuits. Fundamental principles including steady state and transient circuit response; complex impedance and admittance, Fourier and Laplace transforms and three-phase circuits. Application of fundamental circuit principles to operational amplifier and transistor circuits.</td>
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<tr>
<td>ENGR 40</td>
<td>Statics</td>
<td>3</td>
<td>Degree Applicable, CSU, UC</td>
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<td>54 hours lecture</td>
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<td>Prerequisite: PHYS 4A</td>
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<td>Vector approach to static equilibrium of rigid bodies, forces, couples in two- and three-dimensional space. Application of equilibrium principles to trusses, frames and machines. Calculation of center of mass and centroid. Friction, moment of inertia, distributed and concentrated loads. Forces in cables and beams. Fluid statics. Introduction to virtual work.</td>
</tr>
<tr>
<td>ENGR 41</td>
<td>Dynamics</td>
<td>3</td>
<td>Degree Applicable, CSU, UC</td>
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<td>54 hours lecture</td>
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<td>Prerequisite: ENGR 40</td>
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<td>Vector approach to classical mechanics including absolute and relative motion of particles and rigid bodies in translational and rotational motion. Instantaneous center of rotation. Application of Newton’s Second Law; work-energy and impulse-momentum methods, and introduction to mechanical vibrations.</td>
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<tr>
<td>ENGR 42</td>
<td>Mechanics of Materials</td>
<td>4</td>
<td>Degree Applicable, CSU, UC</td>
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<td>72 hours lecture</td>
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<td>Prerequisite: ENGR 40</td>
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<td>Mechanics of deformable bodies subjected to axial, torsional, shearing, and bending loads. Includes combined stresses, statically indeterminate structures, deflection and stress analysis of beams, stability of columns, strain energy methods, and design of pressure vessels and structures.</td>
</tr>
<tr>
<td>ENGR 44</td>
<td>Electrical Engineering</td>
<td>4</td>
<td>Degree Applicable, CSU, UC</td>
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<td></td>
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<td>54 hours lecture</td>
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<td>54 hours lab</td>
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<td>Prerequisite: PHYS 4B</td>
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<tr>
<td></td>
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<td>Electrical circuit analysis including applications of Kirchoff’s Laws and Thévenin’s Theorems to DC and AC circuits. Fundamental principles including steady state and transient circuit response; complex impedance and admittance, Fourier and Laplace transforms and three-phase circuits. Application of fundamental circuit principles to operational amplifier and transistor circuits.</td>
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<tr>
<td>ENGR 99</td>
<td>Special Projects in Engineering</td>
<td>1 to 2</td>
<td>Not Degree Applicable</td>
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<td>54 to 108 hours lab</td>
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<td>Prerequisite: PHYS 1 or PHYS 2AG or PHYS 4A (May be taken previously)</td>
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<td>In order to offer selected students recognition for their academic interests and ability and the opportunity to explore their disciplines to greater depth, the various departments from time to time offer special projects courses. The content of each course and the methods of study vary from semester to semester and depend on the particular project under consideration. Student must have instructor’s authorization before enrolling in this class. Students who repeat this course will meet with the instructor and make individual contracts of a more advanced nature to ensure that proficiencies are enhanced.</td>
</tr>
<tr>
<td>EDT 16</td>
<td>Basic CAD and Computer Applications</td>
<td>4</td>
<td>Degree Applicable, CSU</td>
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<td>54 hours lecture</td>
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<td>54 hours lab</td>
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<td>Prerequisite: Eligibility for MATH 51</td>
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<td>Advisory: Eligibility for MATH 51</td>
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<td>Basic CAD (Computer Aided Design and Drafting) and computer application in engineering and related fields (including basic word processing, spreadsheet, CAD and presentation applications).</td>
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<tr>
<td>EDT 18</td>
<td>Engineering CAD Applications</td>
<td>4</td>
<td>Degree Applicable, CSU</td>
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<td>54 hours lecture</td>
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<td>54 hours lab</td>
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<td>Prerequisite: ENGL 68 or satisfactory score on the English Placement Test</td>
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<td>Intermediate CAD for engineering, explores the 2-D and 3-D environments, 3-D parametric solid modeling.</td>
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<tr>
<td>EDT 24</td>
<td>Engineering CAD 3-D Solids and Surfaces</td>
<td>3</td>
<td>Degree Applicable, CSU</td>
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<td>36 hours lecture</td>
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<td>71 hours lab</td>
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<td>Prerequisite: Application approved by department faculty and compliance with Work Experience regulations as designated in the College Catalog</td>
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<td>Provides on-the-job experience at an approved work site which is related to classroom instruction in Engineering Design Technology. A minimum of 75 paid or 60 non-paid clock hours per semester of supervised work is required for each unit of credit. If this is a volunteer program on or off campus, a minimum number hours per month will be required as part of the 60 hour total.</td>
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<tr>
<td>EDT 26</td>
<td>Civil Engineering Technology and CAD</td>
<td>3</td>
<td>Degree Applicable, CSU</td>
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<td>36 hours lecture</td>
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<td>71 hours lab</td>
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<td>Prerequisite: Application approved by department faculty and compliance with Work Experience regulations as designated in the College Catalog</td>
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<td>Theory of civil engineering projects with hands-on instruction in civil drawings and Computer Aided Drafting and Design (CAD) applications. Layout, topography maps, grading plans, sections, street improvements, and interpretation of surveyor’s data are covered. Set of CAD drawings produced for a final portfolio.</td>
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<tr>
<td>EDT 89</td>
<td>Engineering Design Technology</td>
<td>1 to 2</td>
<td>Work Experience</td>
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<td>Degree Applicable, CSU</td>
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<td>(May be taken for Pass/No Pass only)</td>
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<td>75 to 150 hours lab</td>
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<tr>
<td>ENLG 1A</td>
<td>Freshman Composition</td>
<td>4</td>
<td>Degree Applicable, CSU</td>
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<td>72 hours lecture</td>
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<td>Prerequisite: ENGL 68 or satisfactory score on the English Placement Test</td>
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<td>Develops effective expository writing skills and investigates the principles and methods of composition as applied to the writing of essays and the research paper. Emphasizes critical reading of academic material.</td>
</tr>
</tbody>
</table>
ENGL 1A — Freshman Composition - Honors 4 Units  
(C-ID ENGL 100) Degree Applicable, CSU, UC  
72 hours lecture  
Prerequisite: Acceptance into the Honors Program  
Develops effective expository writing skills and investigates the principles and methods of composition as applied to the writing of essays and the research paper. Emphasizes critical reading of academic material. An honors course designed to provide an enriched experience. Students may not receive credit for both ENGL 1A and ENGL 1AH.

ENGL 1B — English - Introduction to Literary Types 3 Units  
(C-ID ENGL 120) Degree Applicable, CSU, UC  
54 hours lecture  
Prerequisite: ENGL 1A or ENGL 1AH  
Critical, oral, and written evaluation, analysis, and interpretation of short and long fiction, poetry, and drama. Develops a foundation for personal, cultural, and intellectual growth.

ENGL 1BH — English - Introduction to Literary Types - Honors 3 Units  
(C-ID ENGL 120) Degree Applicable, CSU, UC  
54 hours lecture  
Prerequisite: ENGL 1A or ENGL 1AH and acceptance into the Honors Program  
Critical, oral, and written evaluation, analysis and interpretation of short and long fiction, poetry, and drama. Develops a foundation for personal, cultural, and intellectual growth. An honors course designed to provide an enriched experience. May not receive credit for both ENGL 1B and ENGL 1BH.

ENGL 1C — Critical Thinking and Writing 4 Units  
72 hours lecture  
Prerequisite: ENGL 1A or ENGL 1AH  
Develops critical thinking, reading, and writing skills. Focuses on logical analysis and argumentative writing.

ENGL 1CH — Critical Thinking and Writing - Honors 4 Units  
72 hours lecture  
Prerequisite: ENGL 1A or ENGL 1AH and acceptance into the Honors Program  
Develops critical thinking, reading, and writing skills. Focuses on logical analysis and argumentative writing. An honors course designed to provide an enriched experience. Students may not receive credit for both ENGL 1C and ENGL 1CH.

ENGL 1A — Creative Writing - Fiction 3 Units  
(May be taken for option of letter grade or Pass/No Pass)  
54 hours lecture  
Prerequisite: ENGL 1A or ENGL 1AH  
Elements, processes, and techniques of fiction writing. Includes genre, setting, point of view, character development, plot development, description, and dialogue with an emphasis on student development as a writer of fiction through practice and discussion.

ENGL 1B — Creative Writing - Poetry 3 Units  
(May be taken for option of letter grade or Pass/No Pass)  
54 hours lecture  
Prerequisite: ENGL 1A or ENGL 1AH  
Emphasizes the student’s development as a poet.

ENGL 1BH — English - Introduction to Literary Types — Honors 3 Units  
(C-ID ENGL 120) Degree Applicable, CSU, UC  
54 hours lecture  
Prerequisite: ENGL 1A or ENGL 1AH and acceptance into the Honors Program  
Critical, oral, and written evaluation, analysis and interpretation of short and long fiction, poetry, and drama. Develops a foundation for personal, cultural, and intellectual growth.

ENGL 1C — Critical Thinking and Writing 4 Units  
72 hours lecture  
Prerequisite: ENGL 1A or ENGL 1AH  
Develops critical thinking, reading, and writing skills. Focuses on logical analysis and argumentative writing.

ENGL 1CH — Critical Thinking and Writing - Honors 4 Units  
72 hours lecture  
Prerequisite: ENGL 1A or ENGL 1AH and acceptance into the Honors Program  
Develops critical thinking, reading, and writing skills. Focuses on logical analysis and argumentative writing. An honors course designed to provide an enriched experience. Students may not receive credit for both ENGL 1C and ENGL 1CH.

ENGL 1A — Creative Writing - Fiction 3 Units  
(May be taken for option of letter grade or Pass/No Pass)  
54 hours lecture  
Prerequisite: ENGL 1A or ENGL 1AH  
Elements, processes, and techniques of fiction writing. Includes genre, setting, point of view, character development, plot development, description, and dialogue with an emphasis on student development as a writer of fiction through practice and discussion.

ENGL 1B — Creative Writing - Poetry 3 Units  
(May be taken for option of letter grade or Pass/No Pass)  
54 hours lecture  
Prerequisite: ENGL 1A or ENGL 1AH  
Emphasizes the student’s development as a poet.

ENGL 1BH — English - Introduction to Literary Types — Honors 3 Units  
(C-ID ENGL 120) Degree Applicable, CSU, UC  
54 hours lecture  
Prerequisite: ENGL 1A or ENGL 1AH and acceptance into the Honors Program  
Critical, oral, and written evaluation, analysis and interpretation of short and long fiction, poetry, and drama. Develops a foundation for personal, cultural, and intellectual growth.

ENGL 1C — Critical Thinking and Writing 4 Units  
72 hours lecture  
Prerequisite: ENGL 1A or ENGL 1AH  
Develops critical thinking, reading, and writing skills. Focuses on logical analysis and argumentative writing.

ENGL 1CH — Critical Thinking and Writing - Honors 4 Units  
72 hours lecture  
Prerequisite: ENGL 1A or ENGL 1AH and acceptance into the Honors Program  
Develops critical thinking, reading, and writing skills. Focuses on logical analysis and argumentative writing. An honors course designed to provide an enriched experience. Students may not receive credit for both ENGL 1C and ENGL 1CH.

ENGL 8A — Creative Writing - Fiction 3 Units  
(May be taken for option of letter grade or Pass/No Pass)  
54 hours lecture  
Prerequisite: ENGL 1A or ENGL 1AH  
Elements, processes, and techniques of fiction writing. Includes genre, setting, point of view, character development, plot development, description, and dialogue with an emphasis on student development as a writer of fiction through practice and discussion.

ENGL 8B — Creative Writing - Poetry 3 Units  
(May be taken for option of letter grade or Pass/No Pass)  
54 hours lecture  
Prerequisite: ENGL 1A or ENGL 1AH  
Emphasizes the student’s development as a poet.

ENGL 8C — Creative Writing - Novel 3 Units  
(May be taken for option of letter grade or Pass/No Pass)  
54 hours lecture  
Prerequisite: ENGL 8A  
Elements, processes, and techniques for creating and writing novels through practice and discussion.

ENGL 8D — Creative Writing - Poetry Collection 3 Units  
(May be taken for option of letter grade or Pass/No Pass)  
54 hours lecture  
Prerequisite: ENGL 8A  
Elements, processes, and techniques for creating and writing creative nonfiction collections. Includes theme, imagery, line breaks, diction, and prosody, with an emphasis on student development as a creator of creative nonfiction collections. Includes forms, theme, voice, style, with an emphasis on student development as a creator of creative nonfiction collections through reading, practice, writing, and discussion.

ENGL 8E — Creative Writing - Memoir Collection 3 Units  
(May be taken for option of letter grade or Pass/No Pass)  
54 hours lecture  
Prerequisite: ENGL 8B  
Emphasizes advanced techniques for journal writing. Students will develop techniques that allow them to turn private work into public pieces. Processes and techniques will be improved through practice and discussion.

ENGL 8F — Creative Writing - Memoir Collection 3 Units  
(May be taken for option of letter grade or Pass/No Pass)  
54 hours lecture  
Prerequisite: ENGL 8B  
Emphasizes advanced techniques for journal writing. Students will develop techniques that allow them to turn private work into public pieces. Processes and techniques will be improved through practice and discussion.

ENGL 8G — Creative Writing-Memoir Collection 3 Units  
(May be taken for option of letter grade or Pass/No Pass)  
54 hours lecture  
Prerequisite: ENGL 8F  
Emphasizes advanced techniques for journal writing. Students will develop techniques that allow them to turn private work into public pieces. Processes and techniques will be improved through practice and discussion.

ENGL 8H — Creative Writing - Nonfiction Collections 3 Units  
(May be taken for option of letter grade or Pass/No Pass)  
54 hours lecture  
Prerequisite: ENGL 8F  
Emphasizes advanced techniques for journal writing. Students will develop techniques that allow them to turn private work into public pieces. Processes and techniques will be improved through practice and discussion.

ENGL 8I — Creative Writing - Nonfiction Collections 3 Units  
(May be taken for option of letter grade or Pass/No Pass)  
54 hours lecture  
Prerequisite: ENGL 8F  
Emphasizes advanced techniques for journal writing. Students will develop techniques that allow them to turn private work into public pieces. Processes and techniques will be improved through practice and discussion.

ENGL 8J — Creative Writing - Memoir Collection 3 Units  
(May be taken for option of letter grade or Pass/No Pass)  
54 hours lecture  
Prerequisite: ENGL 8F  
Emphasizes advanced techniques for journal writing. Students will develop techniques that allow them to turn private work into public pieces. Processes and techniques will be improved through practice and discussion.
Course Descriptions

ENGL 64 — Writing Effective Sentences  1 Unit
(May be taken for option of letter grade or Pass/No Pass)
18 hours lecture
Prerequisite: Eligibility for ENGL 67
Improve sentence writing skills through the analysis and application of sentence elements. Includes the identification and correction of common sentence problems, such as comma splice, fragment, and run-on.

ENGL 65 — Grammar Review  1 Unit
(May be taken for option of letter grade or Pass/No Pass)
18 hours lecture
Review fundamentals of English for the student who needs a practical course focusing on usage and grammar: case, agreement, verbs, verbals, fragments, shifts in construction, dangling modifiers, diction, parallelism, comma-splice, and punctuation.

ENGL 66 — Paragraph Writing  1 Unit
(May be taken for option of letter grade or Pass/No Pass)
18 hours lecture
Analysis and writing of paragraphs. Through the process of writing, the student learns to state and support an idea about a focused topic.

ENGL 67 — Writing Fundamentals  4 Units
(May be taken for option of letter grade or Pass/No Pass)
72 hours lecture
Prerequisite: Satisfactory score on the English Placement Test or completion of AMLA 42W or completion of LERN 81
Emphasizes sentence, outlining, summary, paragraph and essay completion of AMLA 42W or completion of LERN 81
Prerequisite: ENGL 1A
Analysis and writing of paragraphs. Through the process of writing, the student learns to state and support an idea about a focused topic.

ENGL 68 — Preparation for College Writing  4 Units
(May be taken for option of letter grade or Pass/No Pass)
72 hours lecture
Prerequisite: ENGL 67 or AMLA 43W or satisfactory score on the English Placement Test
Instructor authorization needed prior to enrollment
Prerequisite: ENGL 1A
A chronological study of major works from Beowulf and the Anglo-Saxon period to the mid-18th century.

ENGL 69 — Special Projects in English  2 Units
(May be taken for option of letter grade or Pass/No Pass)
36 hours lecture
Prerequisite: ENGL 1A
Offers selected students recognition for their academic interest and ability, and the opportunity to explore the discipline in greater depth. The content of this course and the methods of study vary and depend on the particular project under consideration.

ENGL 75 — Vocabulary Building  3 Units
(May be taken for option of letter grade or Pass/No Pass)
54 hours lecture
Expands students’ reading, writing and speaking vocabularies through study of the principles of word formation, emphasizing prefixes, roots, suffixes and the effective use of content clues as well as dictionaries and other reference works.

ENGL 81 — Language Acquisition  3 Units
Degree Applicable, CSU
54 hours lecture
Prerequisite: ENGL 1A
Language structure, linguistics, language development. Explores first and second-language acquisition as it pertains to K-12 learners. Meets the Commission on Teaching Credentialing standards for Language Acquisition requirement for elementary school teaching credential.

ENGL 99 — Special Projects in English  2 Units
(May be taken for option of letter grade or Pass/No Pass)
54 hours lecture
Prerequisite: ENGL 1A
A chronological study of major works from Beowulf and the Anglo-Saxon period to the mid-18th century.

LIT 1 — Early American Literature  3 Units
(C-ID ENGL 130)  Degree Applicable, CSU, UC
54 hours lecture
Prerequisite: ENGL 1A
American literature of the Seventeenth, Eighteenth, and Nineteenth Centuries. Emphasizes writers who created an American literary identity and shaped America’s cultural mythology.

LIT 2 — Modern American Literature  3 Units
(C-ID ENGL 135)  Degree Applicable, CSU, UC
54 hours lecture
Prerequisite: ENGL 1A
Emphasizes characteristic late 19th, 20th, and 21st century concerns as they relate to American literary form and content.

LIT 3 — Multicultural American Literature  3 Units
Degree Applicable, CSU, UC
54 hours lecture
Prerequisite: Eligibility for ENGL 1A
Analyzes the representative contributions of diverse groups to American literature and culture. Covering a wide spectrum of historical periods and literary genres, the course will focus on issues of ethnic identity, assimilation, acculturation, cultural pluralism, and family and gender roles in order to highlight awareness of diversity in America. Representative literature may include that of and by African Americans, Hispanic Americans, Native Americans, Asian Americans, Gay and Lesbian Americans, people with differing abilities and religions.

LIT 6A — Survey of English Literature  3 Units
(C-ID ENGL 160)  Degree Applicable, CSU, UC
54 hours lecture
Prerequisite: ENGL 1A
A chronological study of major works from Beowulf and the Anglo-Saxon period to the mid-18th century.

LIT 6B — Survey of English Literature  3 Units
Degree Applicable, CSU, UC
54 hours lecture
Prerequisite: ENGL 1A
Major works from the Romantic Era through the Victorian and Modern periods to contemporary texts.

LIT 10 — Survey of Shakespeare  3 Units
Degree Applicable, CSU, UC
54 hours lecture
Prerequisite: ENGL 1A
Survey of works from Shakespeare’s histories, tragedies, comedies, and selected sonnets with their historical and literary contexts, emphasizing their relevance to contemporary culture and values.

LIT 11A — World Literature to 1650  3 Units
Degree Applicable, CSU, UC
54 hours lecture
Prerequisite: ENGL 1A
Examines works from classical Greece through the Renaissance. Emphasizes the interrelationship of literature, art, society, politics, philosophies and general culture.

LIT 11B — World Literature from 1650  3 Units
Degree Applicable, CSU, UC
54 hours lecture
Prerequisite: ENGL 1A
Works and ideas from 1650 through the 21st century emphasizing those works which not only reflect qualities of universal greatness but also the thought and spirit of the ages in which they were written. Emphasizes how art, society, politics, philosophies and general culture are interrelated and reflected in the literature of these different eras.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Units</th>
<th>Degree Applicable, CSU, UC</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>LIT 14</strong></td>
<td>Introduction to Modern Poetry</td>
<td>3</td>
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<tr>
<td></td>
<td>54 hours lecture</td>
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<td>Prerequisite: ENGL 1A</td>
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<td></td>
<td>Examines the significant poetry of England and America in the</td>
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<td></td>
<td>20th and 21st centuries, with the major emphasis on contemporary</td>
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<td></td>
<td>poems.</td>
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<tr>
<td><strong>LIT 15</strong></td>
<td>Introduction to Cinema</td>
<td>3</td>
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<td>54 hours lecture</td>
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<td>Prerequisite: ENGL 1A</td>
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<td></td>
<td>Explores the broad range of human experience inherent in the study</td>
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<td></td>
<td>of film as art. Using a number of films drawn from various genres,</td>
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<td>examines film from historical, social, technological and aesthetic</td>
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<td></td>
<td>perspectives.</td>
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<td><strong>LIT 20</strong></td>
<td>African American Literature</td>
<td>3</td>
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<td>54 hours lecture</td>
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<td>Prerequisite: ENGL 1A</td>
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<td></td>
<td>Surveys Eighteenth through Twenty-first Century writings of</td>
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<td>African Americans. Emphasizes the oral tradition, development of</td>
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<td>protest literature and major modern and contemporary writers</td>
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<td></td>
<td>such as Wright, Ellison, Baldwin, Walker, and Morrison.</td>
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<td><strong>LIT 25</strong></td>
<td>Contemporary Mexican American Literature</td>
<td>3</td>
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<td>54 hours lecture</td>
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<td>Prerequisite: ENGL 1A</td>
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<td></td>
<td>Contemporary Mexican-American literature, drama, and film.</td>
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<td>Includes discussion of the roles played by gender, religion,</td>
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<td>language, education, family, ethnic identity, and class.</td>
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<td></td>
<td>Also addresses application of literary tools such as symbolism,</td>
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<td>language, and theme.</td>
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<tr>
<td><strong>LIT 36</strong></td>
<td>Introduction to Mythology</td>
<td>3</td>
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<td>54 hours lecture</td>
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<td>Prerequisite: ENGL 1A</td>
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<td></td>
<td>Major myths, including creation, fertility, and hero myths.</td>
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<td>Theories and approaches to these archetypal stories and the ways</td>
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<td>that they reflect and shape culture. Emphasis is on Classical myths,</td>
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<td>but myths from around the world may be included.</td>
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<td><strong>LIT 40</strong></td>
<td>Children’s Literature</td>
<td>3</td>
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<td>(C-ID ENGL 180)</td>
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<td>54 hours lecture</td>
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<td>Prerequisite: ENGL 1A</td>
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<td></td>
<td>Children’s fiction and non-fiction books from around the world.</td>
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<td>Emphasis is given to analysis and interpretation of thematic and</td>
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<td>literary elements, suitability for age group, quality of writing and</td>
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<td>illustration, award-winning books, and issues related to cultural</td>
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<td>patterns, bias and persuasiveness.</td>
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<td><strong>LIT 46</strong></td>
<td>The Bible as Literature: Old Testament</td>
<td>3</td>
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<td>54 hours lecture</td>
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<td>Prerequisite: ENGL 1A</td>
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<td></td>
<td>Considers the Bible as a collection of literary texts and applies</td>
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<td>the principles of literary analysis to the Old Testament in their</td>
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<td></td>
<td>historical and cultural contexts.</td>
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<td><strong>LIT 47</strong></td>
<td>The Bible as Literature: New Testament</td>
<td>3</td>
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<td></td>
<td>54 hours lecture</td>
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<td>Prerequisite: ENGL 1A</td>
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<td></td>
<td>Considers the Bible as a collection of literary texts and applies</td>
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<td>the principles of literary analysis to selected books of the New</td>
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<td>Testament in their historical and cultural contexts.</td>
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<td><strong>FCS 41</strong></td>
<td>Life Management</td>
<td>3</td>
<td></td>
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<td></td>
<td>54 hours lecture</td>
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<td>Life skills for effective self-management now and in the future.</td>
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<td>Examine theories of life management including Maslow’s Hierarchy of</td>
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<td>Needs and how it can be applied to daily use of one’s resources</td>
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<td>including energy, abilities, priorities, and money. Major topics</td>
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<td>include steps in value clarification, goal setting, resource</td>
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<td>allocation, decision-making, priority management, money management,</td>
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<td>workplace management, communication skills and healthy habits.</td>
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<td>In addition, the course explores the effect of cultural forces and</td>
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<td>future trends.</td>
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<td><strong>FCS 51</strong></td>
<td>Consumer Skills, Issues, and Strategies</td>
<td>3</td>
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<td></td>
<td>54 hours lecture</td>
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<td>Consumer skills with an emphasis on practical applications in the</td>
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<td>marketplace. Topics include consumer movement, consumer rights and</td>
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<td>responsibilities, financial wellness, consumer debt, behavior,</td>
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<td>fraud, and redress. Explores the relationship between consumer</td>
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<td>skills, careers, and job skills.</td>
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<td><strong>FASH 8</strong></td>
<td>Introduction to Fashion</td>
<td>3</td>
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<td>54 hours lecture</td>
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<td></td>
<td>Fashion industry from concept to consumer, industry background,</td>
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<td>and technology. Includes design, manufacturing, distribution, sales,</td>
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<td>and promotion with emphasis on career opportunities and</td>
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<td>qualifications.</td>
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<td><strong>FASH 9</strong></td>
<td>History of Costume and Fashion</td>
<td>3</td>
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<td>54 hours lecture</td>
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<td></td>
<td>Survey of Western costume and fashion from antiquity to</td>
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<td>contemporary times. Emphasis is placed on style development as it</td>
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<td>relates to social, economic and political forces, and the</td>
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<td>relationship of historic styles to current fashion.</td>
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<td><strong>FASH 10</strong></td>
<td>Clothing Construction I</td>
<td>3</td>
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<td>36 hours lecture</td>
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<td></td>
<td>Essentials of industry standard apparel construction techniques</td>
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<td>using a variety of machines and equipment. Students will be given</td>
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<td>instruction in single needle machine operation, industrial</td>
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<td>overlock operation, and garment assembly.</td>
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<td><strong>FASH 12</strong></td>
<td>Clothing Construction II</td>
<td>3</td>
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<tr>
<td></td>
<td>54 hours lab</td>
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<tr>
<td></td>
<td>Advanced industry construction techniques using overlock and</td>
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<td>single needle machines.</td>
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</table>
Course Descriptions

FASH 14 — Dress, Culture, and Identity  
3 Units  
Degree Applicable, CSU

54 hours lecture
The interrelatedness of socio-psychological, economic, cultural, and political/religious influences on dress, adornment, and fashion in historical perspective. Includes cross-cultural analysis of Western and non-Western dress.

FASH 15 — Aesthetic Design in Fashion  
3 Units  
Degree Applicable, CSU, UC

54 hours lecture
Prerequisite: FASH 25
Design principles and influences in apparel selection and fashion design. Projects applying design elements and principles using CAD software.

FASH 17 — Textiles  
3 Units  
Degree Applicable, CSU

54 hours lecture
Manufacturing of textiles and fabrics and the factors that determine the suitability for end use. Topics include natural and synthetic fibers, yarns, fabric construction, dyes, finishes, legislation, and care. Emphasis is on selection criteria for textile product design and recent developments in the textile field.

FASH 21 — Patternmaking I  
3 Units  
Degree Applicable, CSU

36 hours lecture
54 hours lab
Prerequisite: FASH 10
Theory and application of basic flat patternmaking techniques to create garment designs using industry standards. By means of dart and seam manipulation, patterns will be created, constructed and fitted.

FASH 22 — Fashion Design By Draping  
3 Units  
Degree Applicable

36 hours lecture
54 hours lab
Prerequisite: FASH 10
Advisory: FASH 21
Three dimensional dress design through draping fabrics directly to a dress form to create original designs and patterns to interpret fashion illustrations and technical flats.

FASH 23 — Patternmaking II  
3 Units  
Degree Applicable

36 hours lecture
54 hours lab
Prerequisite: FASH 21 and FASH 25
Intermediate pattern drafting and flat patternmaking, with an introduction to the grading of patterns and technical packages. Development of patternmaking skills to include drafting flat patterns from measurements, creating advanced sleeves and collars. Students apply patternmaking theories to create ready-to-wear sportswear designs for misses and women’s wear.

FASH 24 — Fashion Patternmaking by Computer  
3 Units  
Degree Applicable

36 hours lecture
54 hours lab
Prerequisite: FASH 21

FASH 25 — Fashion Computer-Assisted Drawing  
3 Units  
Degree Applicable

36 hours lecture
54 hours lab
Prerequisite: FASH 25 or ARTC 140
Industrial fashion patternmaking and grading using Gerber Computer Aided Design (CAD) technology. Exploration of drawing techniques, pattern development, flat pattern manipulation and the sizing and grading of patterns.

FASH 26 — Retail Buying and Merchandising  
3 Units  
Degree Applicable, CSU

54 hours lecture
Advisory: MATH 51
Principles and practices used in the retail buying and merchandising environment. This course emphasizes the buyer’s role in merchandising management, pricing strategies, promotion, retail formulas, and costing calculations.

FASH 62 — Retail Buying and Merchandising  
3 Units  
Degree Applicable, CSU

54 hours lecture
Principles and techniques of advertising and promoting apparel wholesale and retail products. Emphasis placed on promotional mix, trend and forecast research, branding, special events, integrated marketing, promotional media, and communication strategy.

FASH 66 — Visual Merchandising Display  
3 Units  
Degree Applicable, CSU

36 hours lecture
54 hours lab
Prerequisite: FASH 25 or ARTC 140
Design principles, color theory, space and lighting in relation to visual merchandising display areas and interior design of stores using various applications of computer graphics programs.

FASH 81 — Work Experience in Fashion Merchandising and Retail  
1 to 3 Units  
Degree Applicable

(May be taken for Pass/No Pass only)
75 to 225 hours lab
Prerequisite: FASH 8
Provides fashion merchandising 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 in apparel merchandising, buying and/or retail business required for each one unit of credit. Students are responsible for securing their own internships and must be ready for the first week of class. Students who repeat this course will improve skills through further instruction and practice.

FIRE 1 — Fire Protection Organization  
3 Units  
Degree Applicable, CSU

54 hours lecture
Covers fire protection and related fields, history of fire protection, fire loss analysis, and public, quasi-public, and private fire protection services. Also includes specific fire protection functions and fire behavior, suppression, and extinguishment.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Units</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>FIRE 2</td>
<td>Fire Prevention Technology</td>
<td>3</td>
<td>History of fire prevention, including codes, ID and correction of hazards, investigation, and public safety education.</td>
</tr>
<tr>
<td>FIRE 3</td>
<td>Fire Protection Equipment and Systems</td>
<td>3</td>
<td>Portable fire extinguishing equipment, sprinkler and standpipe systems, protection systems for special hazards, fire alarm and detection systems and maintenance, design and operation of sprinkler systems, water supply, pump, tanks and connections.</td>
</tr>
<tr>
<td>FIRE 4</td>
<td>Building Construction for Fire Protection</td>
<td>3</td>
<td>Building construction and fire code safety effects on pre-planning, engineering, inspections, fire ground operations, fire and building codes relationships.</td>
</tr>
<tr>
<td>FIRE 5</td>
<td>Fire Behavior and Combustion</td>
<td>3</td>
<td>Theory of how and why fires start, spread and are controlled; in depth study of fire chemistry and physics, characteristics of materials, extinguishing of materials, extinguishing agents and fire control techniques.</td>
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<tr>
<td>FIRE 6</td>
<td>Hazardous Materials/ICS</td>
<td>3</td>
<td>Hazardous chemicals, their physical properties, use in industry, characteristics when involved in spills, fire and accidents. Information regarding emergency procedures, legal requirements, compliance to regulations, health effects and treatment, protocols that meet OSHA requirements.</td>
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<td>FIRE 7</td>
<td>Fire Fighting Tactics and Strategy</td>
<td>3</td>
<td>Principles of fire control through utilization of staff, equipment and extinguishing agents, fire command and control procedures, understanding types of building construction as it relates to fire control, review of fire chemistry, pre-fire planning, organized approach to decision making on the fire scene, basic firefighting strategy and tactics.</td>
</tr>
<tr>
<td>FIRE 8</td>
<td>Fire Company Organization and Management</td>
<td>3</td>
<td>Fire department company organization, management, leadership, company officer responsibilities, personnel issues, administration, communication, firefighter safety and wellness, firefighting capability, records, and reports.</td>
</tr>
<tr>
<td>FIRE 9</td>
<td>Fire Hydraulics</td>
<td>3</td>
<td>Mathematics, hydraulic laws and formulas as applied to fire service. Application of formulas and mental calculation to hydraulic problems, water supply problems, and underwater requirements for pumps.</td>
</tr>
<tr>
<td>FIRE 10</td>
<td>Arson and Fire Investigation</td>
<td>3</td>
<td>Cause, origin, incendiaries, related laws and types of incendiary fires. Methods of determining fire cause, recognizing and preserving evidence, interviewing and detaining witnesses, adult and juvenile fire setters, court procedure and testimony.</td>
</tr>
<tr>
<td>FIRE 11</td>
<td>Fire Apparatus and Equipment</td>
<td>3</td>
<td>Mechanized equipment operated by the fire service personnel and regulations pertaining to their use. Includes driving laws, driving techniques, construction and operation of pumping engines, ladder trucks, aerial platforms, specialized equipment, and apparatus maintenance.</td>
</tr>
<tr>
<td>FIRE 12</td>
<td>Wildland Fire Control</td>
<td>4.5</td>
<td>Addresses wildland fire behavior, safety considerations, strategy, tactics, and operational differences within the wildland urban interface. Field trip required.</td>
</tr>
<tr>
<td>FIRE 13</td>
<td>Principles of Fire and Emergency Services Safety and Survival</td>
<td>3</td>
<td>Fire Technology principles. History of the National Firefighter Life Safety Initiative and need for cultural and behavioral change. This course meets the National Fire and Emergency Services Higher Education objectives as it pertains to firefighter safety and survival techniques used in today’s fire service.</td>
</tr>
<tr>
<td>FIRE 86</td>
<td>Basic Fire Academy</td>
<td>14.5</td>
<td>Standard fire department apparatus and equipment, salvage covers and fire extinguishment techniques 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.</td>
</tr>
<tr>
<td>FIRE 91</td>
<td>Fire Academy Ladder Orientation</td>
<td>1</td>
<td>(May be taken for Pass/No Pass only)</td>
</tr>
<tr>
<td>FIRE 96</td>
<td>Work Experience Fire Science</td>
<td>1 to 4</td>
<td>Intensive training in ladder manipulation to prepare students for Fire Academy and physical fitness tests given by the fire departments.</td>
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</tr>
</tbody>
</table>
### COURSE DESCRIPTIONS

**FRENCH**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Degree Applicable, CSU, UC</th>
</tr>
</thead>
<tbody>
<tr>
<td>FRCH 1 — Elementary French</td>
<td>4 Units</td>
<td>Degree Applicable, CSU, UC</td>
<td></td>
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<tr>
<td></td>
<td>72 hours lecture</td>
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<tr>
<td></td>
<td>Beginning course for students without prior exposure to French. Begins to develop the ability to converse, read and write in French. Emphasis is on oral proficiency. Includes the study of principles of language learning, pronunciation, basic vocabulary and grammatical structures. Extensive exposure to the cultures of French-speaking countries.</td>
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<tr>
<td>FRCH 2 — Continuing Elementary French</td>
<td>4 Units</td>
<td>Degree Applicable, CSU, UC</td>
<td></td>
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<tr>
<td></td>
<td>72 hours lecture</td>
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<tr>
<td></td>
<td>Prerequisite: FRCH 1 or equivalent</td>
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<td></td>
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<tr>
<td></td>
<td>Further development of intermediate-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.</td>
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<tr>
<td>FRCH 3 — Intermediate French</td>
<td>4 Units</td>
<td>Degree Applicable, CSU, UC</td>
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<tr>
<td></td>
<td>72 hours lecture</td>
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<td></td>
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<tr>
<td></td>
<td>Prerequisite: FRCH 2 or equivalent</td>
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<tr>
<td></td>
<td>Expansion of vocabulary and structural components. Further development of communicative proficiency with increasing emphasis on reading and writing. Extensive exposure to culture from France and other French-speaking countries.</td>
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</tr>
<tr>
<td>FRCH 4 — Continuing Intermediate French</td>
<td>4 Units</td>
<td>Degree Applicable, CSU, UC</td>
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<tr>
<td></td>
<td>72 hours lecture</td>
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<tr>
<td></td>
<td>Prerequisite: FRCH 3</td>
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<tr>
<td></td>
<td>Continued development of intermediate-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.</td>
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</tr>
<tr>
<td>FRCH 5 — Advanced French</td>
<td>4 Units</td>
<td>Degree Applicable, CSU, UC</td>
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<td></td>
<td>72 hours lecture</td>
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<td></td>
<td>Prerequisite: FRCH 4 or equivalent</td>
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<td></td>
<td>Further insight into the cultures of France and other French-speaking countries using an advanced level of proficiency in the language. Includes analysis of short literary works from diverse cultures, and group discussions about contemporary topics found in films and newspaper articles.</td>
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<tr>
<td>FRCH 6 — Continuing Advanced French</td>
<td>4 Units</td>
<td>Degree Applicable, CSU, UC</td>
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<td></td>
<td>72 hours lecture</td>
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<td></td>
<td>Prerequisite: FRCH 5 or equivalent</td>
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<tr>
<td></td>
<td>Extensive reading and analysis of short literary works from diverse French and French-speaking cultures. Discussion of films, newspaper articles and contemporary topics. Develops fluency in French through group discussions, oral presentations, and writing.</td>
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<tr>
<td>FRCH 53 — Intermediate Conversational French</td>
<td>3 Units</td>
<td>Degree Applicable, CSU, UC</td>
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<td></td>
<td>54 hours lecture</td>
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<td></td>
<td>Prerequisite: FRCH 2</td>
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<td></td>
<td>Intermediate level fluency through expansion of vocabulary and practical use of language.</td>
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<tr>
<td>FRCH 54 — Continuing Intermediate Conversational French</td>
<td>3 Units</td>
<td>Degree Applicable, CSU, UC</td>
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<tr>
<td></td>
<td>54 hours lecture</td>
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<td></td>
<td>Prerequisite: FRCH 3 or FRCH 53 or equivalent</td>
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<tr>
<td></td>
<td>Continuing to intermediate level fluency through further expansion of vocabulary and practical use of language.</td>
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<tr>
<td>FRCH 60 — French Culture Through Cinema</td>
<td>3 Units</td>
<td>Degree Applicable, CSU, UC</td>
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<tr>
<td></td>
<td>54 hours lecture</td>
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<td>(May be taken for option of letter grade or Pass/No Pass)</td>
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<td></td>
<td>French culture and history as presented in classic and contemporary 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.</td>
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<tr>
<td>GEOG 1 — Elements of Physical Geography</td>
<td>3 Units</td>
<td>Degree Applicable, CSU, UC</td>
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<tr>
<td></td>
<td>54 hours lecture</td>
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<td>Prerequisite: Eligibility for ENGL 68</td>
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<td>Study of the natural processes creating the earth’s physical environments with emphasis on the inter-relationships of natural processes and systems; general atmospheric circulation, earth-sun relationships, oceanic circulation, water and energy budgets, plate tectonics, and the shaping of the physical landscape.</td>
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<tr>
<td>GEOG 1LH — Physical Geography Laboratory - Honors</td>
<td>1 Unit</td>
<td>Degree Applicable, CSU, UC</td>
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<td></td>
<td>54 hours lab</td>
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<td></td>
<td>Corequisite: GEOG 1 or GEOG 1H (May have been taken previously)</td>
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<td>Advisory: MATH 50</td>
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<td></td>
<td>Geographical 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.</td>
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<tr>
<td>GEOG 2 — Human Geography</td>
<td>3 Units</td>
<td>Degree Applicable, CSU, UC</td>
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<td></td>
<td>54 hours lecture</td>
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<td></td>
<td>Prerequisite: Eligibility for ENGL 68</td>
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<td></td>
<td>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 literacy in the geography of place names and in world regional understanding.</td>
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<tr>
<td>GEOG 2H — Human Geography - Honors</td>
<td>3 Units</td>
<td>Degree Applicable, CSU, UC</td>
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<td></td>
<td>54 hours lecture</td>
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<td>Prerequisite: Acceptance into the Honors Program</td>
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<td>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 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.</td>
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<tr>
<td>COURSE DESCRIPTIONS</td>
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</tbody>
</table>
| **GEOG 5 — World Regional Geography** 3 Units  
(C-ID GEOG 125) Degree Applicable, CSU, UC  
54 hours lecture  
Prerequisite: Eligibility for ENGL 68  
Developmental study of the world’s regions, addressing the major regions of the world in terms of population, resources, economic development, physical environment, and geographic problems. |
| **GEOG 8 — The Urban World** 3 Units  
(May be taken for option of letter grade or Pass/No Pass) Degree Applicable, CSU, UC  
54 hours lecture  
Geographical analysis of past and current patterns of world urbanization. Emphasis is on city origins, growth, development, and current problems. Off-campus assignments may be required. |
| **GEOG 10 — Introduction to Geographic Information Systems** 3 Units  
Degree Applicable, CSU, UC  
36 hours lecture  
54 hours lab  
Advisory: Eligibility for ENGL 68  
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 Geographic Information Systems (GIS)** 3 Units  
Degree Applicable  
54 hours lecture  
Prerequisite: GEOG 10  
Geographic Information Systems (GIS) concepts such as spatial analysis, editing, and raster data sets. Includes hands on experience using hardware and software and emphasizes vector-based and raster-based data models using ArcGIS software the software extensions. |
| **GEOG 30 — Geography of California** 3 Units  
(C-ID GEOG 140) Degree Applicable, CSU, UC  
54 hours lecture  
The thematic approach to issues, processes and topics relevant to the study of California. Includes an examination of the physical processes that shape the landscapes of California, the interaction of humans with these physical processes (particularly the importance of water), and the cultural and social landscapes that have evolved as a result of this human-environment interface. Field trip required. |
| **GEOG 30H — Geography of California - Honors** 3 Units  
(C-ID GEOG 140) Degree Applicable, CSU, UC  
54 hours lecture  
Prerequisite: Acceptance into the Honors Program  
The thematic approach to issues, processes, and topics relevant to the study of California geography. Includes an examination of the physical processes that shape the landscapes of California, the interaction of humans with these physical processes (particularly the importance of water), and the cultural and social landscapes that have evolved as a result of this human-environment interface. An honors course designed to provide an enriched experience. Students may not receive credit for both GEOG 30 and GEOG 30H. Field trip required. |
| **GEOG 91 — Service Learning for Geography** 1 Unit  
(May be taken for option of letter grade or Pass/No Pass) Degree Applicable, CSU, UC  
18 hours lecture  
Increases awareness and appreciation for civic responsibility to the environment through service learning. Students will assess the need for restoring significant habitats damaged by pollution, fire, erosion, or invasive species and learn the importance of being good stewards of the environment. Field trips required. |
| **GEOG 91L — Geography Service Learning Laboratory**  .5 to 2 Units  
(May be taken for option of letter grade or Pass/No Pass) Degree Applicable, CSU, UC  
27 to 108 hours lab  
Corequisite: GEOG 91 (May be taken previously)  
Environmental needs of the community through service learning projects. Students will perform work needed for restoring significant habitats damaged by pollution, fire, erosion or invasive species. Examples of some of the work include planting trees, building trails, or collecting litter. Field trips required. |
| **GEOG 99 — Special Projects in Geography** 2 Units  
Degree Applicable, CSU  
36 hours lecture  
Offers students recognition for their academic interests in geography and the opportunity to explore the discipline of geography in greater depth. The content and methods of the course vary from semester to semester depending on the particular project under consideration. |
| **GEOG 1 — Physical Geology** 4 Units  
Degree Applicable, CSU, UC  
54 hours lecture  
54 hours lab  
Prerequisite: Eligibility for MATH 51  
An introduction to geological thinking and Earth processes. Essentials of minerals, rocks, earthquakes, volcanoes, and landscapes are presented within a framework of plate tectonics operating in concert with atmosphere and ocean processes. A field course for students entering the geosciences major. May be taken by the non-major as a transferable lab science. Required field trips may involve overnight camping. |
| **GEOG 1H — Physical Geology - Honors** 4 Units  
Degree Applicable, CSU, UC  
54 hours lecture  
54 hours lab  
Prerequisite: Eligibility for MATH 51  
An honors course designed to provide an enriched experience. Fundamentals of geology, oceanography, meteorology, and astronomy. The companion Earth Science laboratory (GEOL 8L) is recommended for students needing a lab to transfer to a 4-year college/university. Field trips are required. |
| **GEOG 2 — Historical Geology** 4 Units  
Degree Applicable, CSU, UC  
54 hours lecture  
54 hours lab  
Field trip required.  
Prerequisite: GEOG 1 or GEOG 8H  
An Earth systems approach applied to tracing the tectonic, biologic, and climatic development of Earth, with focus on North America, through geologic time. Study of Earth history using geologic maps, cross-sections, minerals, rocks, and fossils and integrating basic geological field methods. Required field trips may involve overnight camping. |
| **GEOG 7 — Geology of California** 3 Units  
Degree Applicable, CSU, UC  
54 hours lecture  
Introductory geology course highlighting the natural provinces of California, namely their mineral, rock, and petroleum resources, volcanoes and earthquakes, landscapes, and geologic history as influenced by plate tectonic and surface processes. Field trips are required and may involve overnight camping. |
| **GEOG 8 — Earth Science** 3 Units  
Degree Applicable, CSU, UC  
54 hours lecture  
Fundamentals of geology, oceanography, meteorology, and astronomy. The companion Earth Science laboratory (GEOL 8L) is recommended for students needing a lab to transfer to a 4-year college/university. Field trips are required. |
| **GEOG 8H — Earth Science - Honors** 3 Units  
Degree Applicable, CSU, UC  
54 hours lecture  
Prerequisite: Acceptance into the Honors Program  
An honors course designed to provide an enriched experience. Fundamentals of geology, oceanography, meteorology, and astronomy. The companion Earth Science laboratory (GEOL 8L) is recommended for students needing a lab to transfer to a 4-year college or university. Field trips are required. Students may not receive credit for both GEOG 8 and GEOG 8H. |
COURSE DESCRIPTIONS

GEOL 8L — Earth Science Laboratory  1 Unit
Degree Applicable, CSU, UC
54 hours lab
Corequisite: GEOL 8 or GEOL 8H (May have been taken previously)
Laboratory applications and problem-solving in geology, oceanography, meteorology, and astronomy. Recommended for students needing a lab to transfer to a 4-year college/university.

GEOL 9 — Environmental Geology  3 Units
Degree Applicable, CSU, UC
54 hours lecture
Advisory: ENGL 1A
Human interactions with the geological environment for non-science majors. Relevant aspects of the geological environment and the problems currently caused by humans as they use the earth and its resources. Geologic hazards, including earthquakes, volcanoes, landslides, floods, subsidence. Emphasis on geological viewpoints concerning waste disposal, pollution, geothermal energy, fossil fuels, and mining. Geologic practices related to sound land management, conservation of resources, and protection of the environment. Field trips required.

GEOL 10 — Natural Disasters  3 Units
Degree Applicable, CSU, UC
54 hours lecture
Surveys the hazards faced by humans from the natural environment. Analyzes a variety of hazards from a geological perspective. Studies the impact humans have on influencing or exacerbating natural disasters. Includes the role of government in responding to natural disasters. Field trips required.

GEOL 24 — Geologic Field Studies: Central California  4 Units
Degree Applicable, CSU
(May be taken for option of letter grade or Pass/No Pass)
54 hours lecture
54 hours lab
Field studies of selected central California geological provinces and surrounding areas. Overnight field trips required. Trips require significant hiking.

GEOL 25 — Geologic Field Studies: Southern California  4 Units
Degree Applicable, CSU
54 hours lecture
54 hours lab
Field studies of selected southern California geological provinces and surrounding areas. Overnight field trips required. Trips require significant hiking.

GEOL 29 — Special Topics in Field Geology  3 Units
Degree Applicable, CSU
18 hours lecture
108 hours lab
Advisory: GEOL 1 or GEOL 8
Field studies of designated geologic provinces and regions. Emphasis on rock identification and interpretation of geologic histories of field areas. Extended overnight field trips, camping, and strenuous hiking required.

GEOL 99 — Special Projects in Geology  2 Units
Degree Applicable, CSU, UC
108 hours lab
Prerequisite: GEOL 1 or GEOL 8
Advisory: GEOL 8
Field studies of designated geologic provinces and regions. Extended overnight field trips, camping, and strenuous hiking required.

GERM 1 — Elementary German  4 Units
Degree Applicable, CSU, UC
72 hours lecture
For students with no previous German. Develops the ability to converse, read, and write in German. Emphasis on oral proficiency. Includes essentials of pronunciation, vocabulary, idioms, and grammatical structures along with an introduction to Germanic culture.

GERM 2 — Continuing Elementary German  4 Units
Degree Applicable, CSU, UC
72 hours lecture
Prerequisite: GERM 1
Further development of conversational reading and writing skills in German with emphasis on communication skills, expansion of vocabulary, and understanding of structure. Further study of Germanic culture.

GERM 3 — Intermediate German  4 Units
Degree Applicable, CSU, UC
(May be taken for option of letter grade or Pass/No Pass)
72 hours lecture
Prerequisite: GERM 2
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.

HIST 1 — History of the United States  3 Units
Degree Applicable, CSU, UC
54 hours lecture
Prerequisite: Eligibility for ENGL 68
History of the United States from Native American and colonial times to the present. Designed for transfer students who need a one-semester course in United States history to meet general education requirements. History and social science majors should take History 7 and 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 — World History: Prehistoric to Early Modern  3 Units
Degree Applicable, CSU, UC
72 hours lecture
Prerequisite: Eligibility for ENGL 1A
Human societies from their origins to the Early Modern period from a global and comparative perspective including social, political, economic, and cultural institutions and changes.

HIST 3H — World History: Prehistoric to Early Modern - Honors  3 Units
Degree Applicable, CSU, UC
54 hours lecture
Prerequisite: Acceptance into the Honors Program
Human societies from their origins to the Early Modern period from a global and comparative perspective including social, political, economic, and cultural institutions and changes. An honors course designed to provide an enriched experience. Students may not receive credit for both HIST 3 and HIST 3H.

HIST 4 — World History: Early Modern to the Present  3 Units
Degree Applicable, CSU, UC
54 hours lecture
Prerequisite: Eligibility for ENGL 1A
Social, political, economic, and cultural changes during the modern period from a global and comparative perspective.

HIST 4H — World History: Early Modern to the Present - Honors  3 Units
Degree Applicable, CSU, UC
54 hours lecture
Prerequisite: Acceptance into the Honors Program
Social, political, economic, and cultural change during the modern period from a global and comparative perspective. Includes extensive reading and writing assignments. Students may not receive credit for both HIST 4 and HIST 4H.
HIST 7 — History of the United States to 1877  3 Units
Degree Applicable, CSU, UC
54 hours lecture
Prerequisite: Eligibility for ENGL 1A
Survey of American history from Native American origins through post-Civil War Reunion 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 social, religious, and political complexity of the population. Also examines political, philosophical, and intellectual influences on the founding fathers, American political institutions, and the citizens of the country. Satisfies the requirement for a course in American history, including the study of American institutions and ideals and the Constitution of the United States as required by Title 5 of the California Administrative Code.

HIST 7H — History of the United States to 1877  3 Units - Honors
Degree Applicable, CSU, UC
54 hours lecture
Prerequisite: Acceptance into the Honors Program
Survey of American history from Native American origins through post-Civil War Reunion 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 social, religious, and political complexity of the population. Also examines political, philosophical, and intellectual influences on the founding fathers, American political institutions, and the citizens of the country. Satisfies the requirement for a course in American history, including the study of American institutions and ideals and the Constitution of the United States as required by Title 5 of the California Administrative Code. An honors course designed to provide an enriched experience. Students may not receive credit for both HIST 7 and HIST 7H.

HIST 8 — History of the United States from 1865  3 Units
Degree Applicable, CSU, UC
54 hours lecture
Prerequisite: Eligibility for ENGL 1A
History of the United States from 1865 to the present. Examines social, economic, political, intellectual, and military themes and patterns of United States development. Designed for history, social science, or humanities majors, or for transfer students who need a year course in United States history to meet general education requirements. Satisfies the requirement for a course in American history, including the study of American institutions and ideals and the principles of State and local government as required by Title 5 of the California Administrative Code. An honors course designed to provide an enriched experience. Students may not receive credit for both HIST 8 and HIST 8H.

HIST 10 — History of Premodern Asia  3 Units
Degree Applicable, CSU, UC
54 hours lecture
Prerequisite: Eligibility for ENGL 68
History of East, South, and Southeast Asia from the prehistoric age to the early modern period. Emphasizes social, political, economic, and cultural changes in Asia from a regional and comparative perspective.

HIST 11 — History of Modern Asia  3 Units
Degree Applicable, CSU, UC
54 hours lecture
Prerequisite: Eligibility for ENGL 68
History of East, South, and Southeast Asia from the early modern period to the present. Emphasizes social, political, economic, and cultural changes in Asia during the modern period from a regional and comparative perspective.

HIST 16 — The Wild West - A History, 1800-1890  3 Units
Degree Applicable, CSU, UC
(May be taken for option of letter grade or Pass/No Pass)
54 hours lecture
Prerequisite: Eligibility for ENGL 68
History of the 19th Century Trans-Mississippi West (also known as the Wild West or the 19th Century American West) including significant historical, economic, and political events and personalities which make up this time period.

HIST 19 — History of Mexico  3 Units
Degree Applicable, CSU, UC
54 hours lecture
Prerequisite: Eligibility for ENGL 68
Cultural and social history of the Mexican people from pre-Colombian civilization to modern Mexico.

HIST 30 — History of the African American 1619-1877  3 Units
Degree Applicable, CSU, UC
54 hours lecture
Prerequisite: Eligibility for ENGL 68
The history of African Americans from 1619 to 1877, including historical processes and their impact on modern U.S. society. A critical analysis will be made of the contributions of African Americans to the historical development of the United States, and the transformations that have occurred as a result. Satisfies the requirement for a course in American institutions and ideals and the Constitution of the United States as required by Title 5 of the California Administrative Code.

HIST 31 — History of the African American  3 Units
Degree Applicable, CSU, UC
54 hours lecture
Prerequisite: Eligibility for ENGL 68
History of African Americans from the Reconstruction period to the present, including historical processes and their impact on modern U.S. society. A critical analysis will be made of the contributions of African Americans to the historical development of the United States, and the transformations that have occurred as a result. Satisfies the requirement for a course in American institutions and ideals and the Constitution of the United States as required by Title 5 of the California Administrative Code.

HIST 35 — History of Africa  3 Units
Degree Applicable, CSU, UC
54 hours lecture
Prerequisite: Eligibility for ENGL 68
History of Africa from prehistoric times to the present with a focus on cultural, social, political, and economic changes. Topics include ancient African societies, European colonialism, and the reemergence of independent African states in recent decades.

HIST 36 — Women in American History  3 Units
Degree Applicable, CSU, UC
54 hours lecture
Prerequisite: Eligibility for ENGL 68
Women’s experience placed within the context of major themes of United States history, addressing issues and debates related to gender construction and identity from Colonial times to the present. Political, economic, and social currents within the context of race, ethnicity, sexual orientation, and class are examined and analyzed. This course satisfies the requirement for a course in American history including the study of American institutions and ideals, as required by Title 5 of the California Administrative Code.

HIST 39 — California History  3 Units
Degree Applicable, CSU, UC
54 hours lecture
Prerequisite: Eligibility for ENGL 68
The social, intellectual, economic, and political development of California and the Pacific Coast from earliest times to the present.
Course Descriptions

**HIST 40 — History of the Mexican American**  3 Units
Degree Applicable, CSU, UC
54 hours lecture
Prerequisite: Eligibility for ENGL 68
U.S. history from colonial times to the present with a special emphasis on the role of Mexican Americans in the development of the nation. Satisfies the requirement for a course in American History, including the study of American institutions and ideals as required by Title 5 of the California Administrative Code.

**HIST 44 — History of Native Americans**  3 Units
Degree Applicable, CSU, UC
54 hours lecture
Prerequisite: Eligibility for ENGL 88
History of the United States from Colonial times to the present with a special emphasis on the role of Native Americans. Examines the role Euro-American social, political, and economic movements play in the Native American experience and the mutual relationships generated through these factors. Critically analyzes how the Native American narrative is woven into the fabric of U.S. history and is an essential component of the complete American story.

**HIST 99 — Special Projects in History**  2 Units
Degree Applicable, CSU
36 hours lecture
Prerequisite: Eligibility for ENGL 1A
Offers 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. Instructor authorization needed prior to enrollment.

**HISTOTECHNOLOGY**

**HT 1 — Introduction to Histotechnology**  1 Unit
Degree Applicable
18 hours lecture
Advisory: Eligibility for ENGL 1A
The role of histotechnicians in preparation and analysis of tissues samples for diagnostic and research purposes. Internet resources, support organizations and periodical references for histotechnicians, as well as regulatory agencies. Set up of an educational plan and portfolio to be used throughout the program.

**HT 2 — Scientific Basics for Histotechnicians**  3 Units
Degree Applicable
54 hours lecture
Advisory: CHEM 10 AND Eligibility for ENGL 1A
General laboratory issues including general laboratory protocols (GLP’s), safety, ethics, and terminology relative to the preparation of tissue samples.

**HT 10 — Histology**  3 Units
Degree Applicable
36 hours lecture
54 hours lab
Advisory: ANAT 35
Microscopy, cell structure, cell reproduction and staining. Identification of tissues, organs and special microstructures, and their detailed morphology. Involves distinguishing normal features from pathological conditions.

**HT 12 — Beginning Histotechniques**  5 Units
Degree Applicable
54 hours lecture
108 hours lab
Prerequisite: HT 1 and HT 2
Advisory: MICR 22
Theory and practical applications and skill-building in tissue fixation, processing, embedding, sectioning, microtomy, hematoxylin-eosin staining (H and E), and microorganism staining. Quality control as it relates to routine histological techniques and equipment.

**HT 14 — Advanced Histotechniques**  5 Units
Degree Applicable
54 hours lecture
108 hours lab
Prerequisite: HT 12
Practical applications of special stains for carbohydrates, amyloid, connective tissues, muscle and nervous tissues, including silver stains. Introduction to frozen sections, cytology preparation, and microwave technology. Field trip required.

**HT 16 — Histochemistry and Immunohistochemistry**  4 Units
Degree Applicable
54 hours lecture
54 hours lab
Prerequisite: HT 12 and HT 10
Practical applications of enzyme and immunological reactions as they relate to tissue staining. Field trip required.

**HT 17 — Work Experience in Histotechnology**  1 to 4 Units
Degree Applicable
(May be taken for Pass/No Pass only)
75 to 300 hours lab
Prerequisite: HT 12 and compliance with Work Experience regulations as designated in the College Catalog
Provides histotechnology 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. Placement by Program Director.

**HOSPITALITY AND RESTAURANT MANAGEMENT**

**HRM 51 — Introduction to Hospitality**  3 Units
Degree Applicable, CSU
54 hours lecture
Prerequisite: Eligibility for ENGL 68
Hospitality industry segments and types of operations with an emphasis on career opportunities. Includes an overview of: tourism, lodging, restaurants, managed services, gaming, recreation, event management, leadership, and marketing.

**HRM 52 — Food Safety and Sanitation**  1.5 Units
Degree Applicable, CSU
27 hours lecture
Prerequisite: Eligibility for ENGL 68
Principles of food safety and sanitation in the food service industry. Emphasis on the role of management in creating and implementing a culture of applied food safety practices within the workplace. Students must pass the ServSafe Food Protection Manager Certification exam to get credit for this course.

**HRM 53 — Dining Room Service Management**  3 Units
Degree Applicable, CSU
54 hours lecture
Skills and knowledge needed for all aspects of dining room service. Exploration of the various styles of service. Table setting styles, buffet set-ups, wine and beverage service, and service as a sales tools are covered. Safety of both customer and staff are discussed. Field trip required.

**HRM 54 — Basic Cooking Techniques**  3 Units
Degree Applicable, CSU
36 hours lecture
54 hours lab
Prerequisite: HRM 52
Professional cooking, tasting, and evaluating techniques for commercial operations. Emphasis on identification and use of proper equipment and ingredients in the production of: stocks, sauces, soups, salads, dressing, meats, poultry, fish, vegetables, starch, and dessert. Uniform and student knife set required. Students must be ServSafe Manager Certified.

**HRM 56 — Hospitality Supervision**  3 Units
Degree Applicable, CSU
54 hours lecture
Human resource management procedures and skills needed to hire, train, and manage employees in the hospitality industry. Role, responsibilities, and legal issues related to supervision. Application of management techniques including: effective communication, recruitment, selection, training, coaching, team building, performance evaluation, discipline, and conflict management.
HRM 57 — Hospitality Cost Control
3 Units
Degree Applicable, CSU

54 hours lecture
Corequisite: HRM 51 (May have been taken previously)
Analyzing and managing: food, beverage, labor, and other costs within a hospitality operation. Emphasis on problem solving, applying cost control techniques to maximize profits while managing expenses. Topics include: establishing standards, cost-volume-profit analysis, forecasting, purchasing and storage controls, menu costing and pricing, theft prevention and labor control.

HRM 61 — Menu Planning
3 Units
Degree Applicable, CSU

54 hours lecture
Advisory: HRM 51
Menu development, design, and analysis. Emphasis on demographics and market research, facility assessment, costing, pricing, menu analysis, menu design and layout. Includes a practical concept-to-creation capstone project.

HRM 62 — Catering
3 Units
Degree Applicable, CSU

54 hours lecture
Prerequisite: BUSA 11 or Eligibility for MATH 50
Comprehensive exploration of the catering business with in-depth study of organizing and catering both on-premise and off-premise events. Marketing and working with clients to combine menu with price. Contracting outside vendors, problem solving and avoiding common problems before they occur.

HRM 64 — Hospitality Financial Accounting
3 Units
Degree Applicable, CSU

54 hours lecture
Prerequisite: BUSA 11 or Eligibility for MATH 50
Financial accounting specific to hospitality businesses. Emphasis on: bookkeeping, financial statements development and analysis, and tailoring the Uniform System of Accounting to hotels, restaurants, clubs and other food service operations.

HRM 66 — Hospitality Law
3 Units
Degree Applicable, CSU

54 hours lecture
Advisory: HRM 51
Business law topics as they relate to the hospitality industry. Principles of negligence, civil rights, contracts, liability, rights of guests and innkeepers, and labor law are covered. Field trip required.

HRM 70 — Introduction to Lodging
3 Units
Degree Applicable, CSU

54 hours lecture
Prerequisite: Eligibility for ENGL 68
Operations in the lodging industry including: hotel organization, front office operations, reservations, registration, guest services, security, front office accounting, housekeeping, night audit, sale and marketing, planning and evaluating, revenue management, and human resources. Independent field trips required for this course.

HRM 81 — Garde Manger
3 Units
Degree Applicable, CSU

36 hours lecture
Corequisite: HRM 52 (May have been taken previously)
Preparation and presentation of cold kitchen foods including: sauces, soups, salads, sandwiches, appetizers, hors d’oeuvres, and buffets.

HRM 82 — Baking and Pastry
3 Units
Degree Applicable, CSU

36 hours lecture
Corequisite: HRM 52 (May have been taken previously)
Preparation of baked goods and pastries including: breads, cakes, icing, laminated pastries, cookies, pies, tarts, and plated desserts.

HRM 83 — International Cuisines
3 Units
Degree Applicable, CSU

36 hours lecture
Corequisite: HRM 52 (May have been taken previously)
Preparation of international cuisines from Asia, Europe, the Mediterranean, and Latin America. Emphasis will be placed on regional dishes from: China, Japan, India, Thailand, Spain, Italy, France, Greece, Lebanon, and Mexico.

HRM 91 — Hospitality Work Experience
1 to 4 Units
Degree Applicable, CSU
(May be taken for Pass/No Pass only)
75 to 300 hours lab
Prerequisite: Compliance with Work Experience regulations as designated in the College Catalog
Provides students with on-the-job experience in an approved worksite which is related to classroom-based learning. A minimum of 75 paid or 60 non-paid clock hours per semester of supervised work is required for each unit of credit. It is recommended that the hours per week be equally distributed throughout the semester. Work experience placement is not guaranteed, but assistance is provided by faculty.

HUMA 1 — The Humanities
3 Units
Degree Applicable, CSU, UC

54 hours lecture
Prerequisite: Eligibility for ENGL 68
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. Off-campus assignments may be required.
IDE 160 — Intermediate CAD 3 Units
Degree Applicable, CSU
36 hours lecture
54 hours lab
Prerequisite: IDE 110 and IDE 120 and IDE 130
Corequisite: IDE 150 and IDE 170
Applications, methods, theories, and industrial design processes used in engineering and industrial design fields. A portfolio-based course that develops skills in sketching, communicating, constructing mock-up and displays, prototyping, and 2D and 3D computer aided design (CAD) parametric solid modeling.

IDE 170 — Introduction to Prototyping 3 Units
Degree Applicable, CSU
36 hours lecture
54 hours lab
Prerequisite: IDE 110 and IDE 120 and IDE 130
Corequisite: IDE 150 and IDE 160
Processes and materials typically employed when creating breadboards, proof of concept models, form studies and production-intent prototypes. Provides hands-on experience with fabrication techniques including related tools and machinery. Emphasis is placed on the design process influenced by material and manufacturing limitations.

IDE 210 — Advanced Media 3 Units
Degree Applicable, CSU
36 hours lecture
54 hours lab
Prerequisite: IDE 150 and IDE 160 and IDE 170
Corequisite: IDE 220 and IDE 230
Digital media used for designing, redesigning, and inventing industrial products. Develops illustration and conceptualization skills using media and technology such as digital project photography, 2D scanners, sketch tablets, and presentation and illustration software. Emphasis is placed on refining and completing a comprehensive portfolio.

IDE 220 — Advanced CAD 3 Units
Degree Applicable, CSU
36 hours lecture
54 hours lab
Prerequisite: IDE 150 and IDE 160 and IDE 170
Corequisite: IDE 210 and IDE 230
Complex surface modeling in hybrid surface and solid environments using rapid modeling methods. Integrates manufacturing technologies, materials, and machine design with an emphasis on translating concepts from visualization manufacturing projects generated using computer aided manufacturing (CAM) and rapid prototyping technologies.

IDE 230 — Introduction to Mechanical Principles 3 Units
Degree Applicable, CSU
36 hours lecture
54 hours lab
Prerequisite: IDE 150 and IDE 160 and IDE 170
Corequisite: IDE 210 and IDE 220
Mechanical devices, concepts and principles common to manufactured products and manufacturing processes. Analysis, discussion, and problem solving related to mechanical design scenarios supported by computer aided design (CAD). Exploration of inherent strengths and weaknesses of specific devices and various design approaches. Emphasis on the way mechanical principles affect design strategies.

IDE 250 — Product Design and Viability 6 Units
Degree Applicable, CSU
9 hours lecture
135 hours lab
Prerequisite: IDE 210 and IDE 220 and IDE 230
Corequisite: IDE 250
Product life cycle from design through manufacturing and distribution. Portfolio-based course that includes fabrication of a viable product and incorporates every stage of project management including research, graphic presentation, parts sourcing, material choices and fabrication of prototype.

IDE 270 — Manufacturing Processes and Materials 3 Units
Degree Applicable, CSU
54 hours lecture
162 hours lab
Prerequisite: IDE 210 and IDE 220 and IDE 230
Corequisite: IDE 270
Manufacturing processes, terminology and procedures. Topics include construction careers, building systems, sustainability, quality control, management and scheduling of resources (materials, equipment, time, personnel and finances).

IDE 290 — Exploring Advanced Design 1 Unit
Degree Applicable, CSU
9 hours lecture
54 hours lab
Prerequisite: IDE 210 and IDE 220 and IDE 230
Corequisite: IDE 270
Introduction to advanced design. Off-campus assignments.

IDE 293 — Professional Design Capstone 9 Units
Degree Applicable, CSU
Prerequisite: IDE 210 and IDE 220 and IDE 230
Corequisite: IDE 270
Product life cycle from design through manufacturing and distribution. Portfolio-based course that includes fabrication of a viable product and incorporates every stage of project management including research, graphic presentation, parts sourcing, material choices and fabrication of prototype.

INS 17 — Legal Aspects of Construction 3 Units
Degree Applicable, CSU
(May be taken for option of letter grade or Pass/No Pass)
54 hours lecture
Advisory: INS 70 taken prior or concurrently
Legal aspects of the construction industry involving the owner, contractor, builder or developer and design professional. Includes codes, licensing, contracts, bonds, and lien laws. May include off-campus assignments.

INS 67 — Reading Construction Drawings 3 Units
Degree Applicable, CSU
54 hours lecture
Reading construction drawings as they apply to architecture, construction, interior design, and related fields. Off-campus assignments may be required.

INS 70 — Elements of Construction 3 Units
Degree Applicable, CSU
54 hours lecture
Construction processes, terminology and procedures. Topics include construction careers, building systems, sustainability, quality control, management and scheduling of resources (materials, equipment, time, personnel and finance).

INS 71 — Construction Estimating 3 Units
Degree Applicable, CSU
54 hours lecture
Construction estimating and bidding procedures using contract documents, construction drawings and cost data. Estimating methods and use of estimating forms or software, including detailed quantity take-offs of building materials and labor required in building construction.

INS 87 — Fundamentals of Construction Inspection 3 Units
Degree Applicable, CSU
54 hours lecture
Construction inspection of light frame wood construction and steel structures. Topics include vertical and horizontal loads, stress analysis, framing and structural standards of lumber and steel, metallurgy and welding.

ID 10 — Introduction to Interior Design 2 Units
Degree Applicable, CSU
36 hours lecture
Interior design and the planning of total interior environments that meet individual, functional and environmental needs. Field trips may be required.

ID 10L — Introduction to Interior Design Laboratory 1 Unit
Degree Applicable, CSU
54 hours lab
Corequisite: ID 10 (May have been taken previously)
Application of the interior design practice and the planning of total interior environments that meet individual, functional and environmental needs. Field trips may be required.
<table>
<thead>
<tr>
<th>ID</th>
<th>Course Title</th>
<th>Units</th>
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<tbody>
<tr>
<td>12</td>
<td>Materials and Products for Interior Design</td>
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<td>Degree Applicable, CSU</td>
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<td>Advisory: ID 10</td>
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<td>Analysis, application, and evaluation of products and materials used in interior design. Field trips may be required.</td>
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<tr>
<td>14</td>
<td>History of Furniture and Decorative Arts</td>
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<td>Degree Applicable, CSU</td>
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<td>54 hours lecture</td>
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<td>Historic development of structure, interior spaces, furniture and decorative arts throughout the world. Interior architecture is illustrated in this overview of design heritage from antiquity to present. Emphasis is placed on style development as it relates to social, economic and political influences as well as the use of materials and technology. Field trips may be required.</td>
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<td>20</td>
<td>Color and Design Theory I</td>
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<td>Degree Applicable, CSU</td>
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<td>Elements and principles of design and the creative process of identifying and solving interior design problems. Formal visual properties of line, shape, form, pattern, texture, and color are studied in their relationship to the organizational systems and unifying principles that create balanced designs. Portfolio pieces will be produced. Field trips may be required.</td>
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<tr>
<td>21</td>
<td>Color and Design Theory II</td>
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<td>Degree Applicable, CSU</td>
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<td>Advisory: ID 20</td>
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<td></td>
<td>Elements and principles of design and the creative process of identifying and solving interior design problems. Formal visual properties of line, shape, form, pattern, texture, and color are studied in their relationship to the organizational systems and unifying principles that create balanced designs. Portfolio pieces will be produced. Field trips may be required.</td>
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<td>22</td>
<td>Design Drawing for Interior Design</td>
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<td>Degree Applicable, CSU</td>
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<td>36 hours lecture</td>
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<td>Communication elements required to convey design ideas to building trades via the written language of design and construction documents. Graphic and drawing techniques, including interior design graphics standards, building construction fundamentals, methods of drawings, and the basics of compiling construction documentation sets. Field trips may be required.</td>
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<tr>
<td>23</td>
<td>Computer Aided Drawing for Interior Design I</td>
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<td>Degree Applicable, CSU</td>
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<td>36 hours lecture</td>
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<td>54 hours lab</td>
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<td>Advisory: ID 22 or ARCH 11</td>
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<td>Computer Aided Drawing (CAD) as a communication element required to convey interior design ideas to building trades. Includes graphic and drawing techniques, interior design graphics, building construction fundamentals, methods of drawings, and construction documentation sets. Portfolio pieces will be produced. Field trips may be required.</td>
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<td>25</td>
<td>Space Planning for Interior Design I</td>
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<td>Prerequisite: ID 22 or ID 23 or ARCH 11</td>
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<td>Federal and state codes and specifications concerning life-safety issues, barrier free access and universal design requirements relative to residential and contract interior design. Attention is given to performance, health safety, and universal design for specifying interior materials and products. Portfolio pieces will be produced. Field trips may be required.</td>
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<td>26</td>
<td>Space Planning for Interior Design II</td>
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<td>Prerequisite: ID 22 or ID 23 or ARCH 11</td>
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<td>p&gt;b&gt;Advisory: /b&gt; ID 25&lt;i&gt; Space planning with an emphasis on programming, behavioral aspects of space, use of furniture standards and applicable codes. Planning skills are gained through the application of basic principles to actual spaces. Portfolio pieces will be produced. Field trips may be required.</td>
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<td>27</td>
<td>Rapid Visualization</td>
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<td>Prerequisite: ID 22 or ID 23 or ARCH 11</td>
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<td>Methods, techniques, and tools used in illustrating interior spaces with an emphasis on rapid production. Includes techniques of drawing and rendering volume, tone, texture, perspective, and composition using sketching, rapid visualization, and formal composition of one-and two-point perspectives. Portfolio pieces will be produced. Field trips may be required.</td>
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<td>29</td>
<td>Interior Design Studio I</td>
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<td>36 hours lecture</td>
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<td>54 hours lab</td>
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<td>Prerequisite: ID 26</td>
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<td>Advisory: ID 12, ID 21, ID 27</td>
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<td>Analysis and application of design concepts to interior environments. Focuses on the creative process of identifying, evaluating and solving design problems while incorporating universal and sustainable design in a studio environment. Includes research and analysis of end-user needs, space requirements, existing architectural elements, and site conditions. Portfolio pieces will be produced. Field trips may be required.</td>
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<td>31</td>
<td>Building Systems for Interior Design</td>
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<td>54 hours lab</td>
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<td>Prerequisite: ID 22 or ID 23 or ARCH 11</td>
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<td>Residential and commercial construction systems and materials. Includes typical building systems used in construction that affect interior design and elements that make up the foundation, floors, walls, and roof. Field trips may be required.</td>
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<tr>
<td>32</td>
<td>Lighting Design and Theory for Interior Design</td>
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<td>Degree Applicable, CSU</td>
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<td>Principles and theory of interior lighting design, lighting technology, terminology, development of lighting design concepts and selection and placement of luminaries to achieve the desired result. Portfolio pieces will be produced. Field trips may be required.</td>
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<td>34</td>
<td>Computer Aided Drawing for Interior Design II</td>
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<td></td>
<td>Degree Applicable, CSU</td>
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<tr>
<td></td>
<td>36 hours lecture</td>
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<tr>
<td></td>
<td>54 hours lab</td>
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<td></td>
<td>Prerequisite: ID 23</td>
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<tr>
<td></td>
<td>Three-dimensional computer modeling, rendering, lighting, and fly-throughs as used in interior design. Portfolio pieces will be produced. Field trips may be required.</td>
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</tr>
<tr>
<td>36</td>
<td>Portfolio Development for Interior Design</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Degree Applicable, CSU</td>
<td></td>
</tr>
<tr>
<td></td>
<td>36 hours lecture</td>
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<td></td>
<td>54 hours lab</td>
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<tr>
<td></td>
<td>Prerequisite: ID 23</td>
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<tr>
<td></td>
<td>Individual professional identities through self-branding as a marketing strategy. Emphasis is on personal, educational, and professional qualifications required for entry into interior design and related professions. Surveys the interior design profession, industry, and related occupations. Portfolio pieces will be produced. Field trips may be required.</td>
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</tr>
</tbody>
</table>
Course Descriptions

**ID 37 — Business Practices for Interior Design** 3 Units  
Degree Applicable  
54 hours lecture  
Principles, procedures, and systems necessary for interior design professionals to start a business. Emphasis will be placed on contracts, legal issues, budgets, revenue generation, purchasing, billing, compensation and collection, interactions with clients, designers, installers, and suppliers. Field trips may be required.

**ID 38 — Internship in Interior Design** 1 to 3 Units  
Degree Applicable  
(May be taken for Pass/No Pass only)  
75 to 225 hours lab  
Prerequisite: Compliance with Work Experience/Internship regulations as designated in the College Catalog.  
Designed to provide the student with actual on-the-job experience in the interior design profession, which relates to classroom based learning. Placement is not guaranteed but assistance is provided by the interior design faculty. A minimum 75 paid clock hours or 60 non-paid clock hours per semester is required.

**ID 39 — Interior Design Studio II** 3 Units  
Degree Applicable, CSU  
36 hours lecture  
54 hours lab  
Prerequisite: ID 26  
Advisory: ID 29  
Formerly ID 215.  
Analysis and application of design concepts to interior environments. Focuses on the creative process of identifying and solving design problems incorporating universal and sustainable design. Includes research and analysis of client requirements for complex programs and their solutions in order to satisfy end-user needs, functional space requirements, public image, existing architectural elements, and site conditions. Portfolio pieces will be produced. Field trips may be required.

**ID 40 — Kitchen and Bath Studio I** 3 Units  
Degree Applicable  
36 hours lecture  
54 hours lab  
Prerequisite: ID 22 or ID 23 or ARCH111  
Advisory: ID 31 or ID 32  
Kitchen and bath design that focuses on ergonomic principles, and specific materials including floor and wall surfaces, window treatments, cabinet selection, appliance and fixture selection, counter top selection, and lighting. Projects will consist of dimensioned floor plans, elevations, isometric drawings, perspective drawings, and section drawings completed in accordance with National Kitchen and Bath Association (NKBA) standards and nomenclature. Portfolio pieces will be produced. Field trips may be required.

**ID 41 — Kitchen and Bath Studio II** 3 Units  
Degree Applicable  
36 hours lecture  
54 hours lab  
Prerequisite: ID 40  
Advisory: ID 32  
Kitchen and bath design that focuses on universal design, design concepts, and historical design for kitchen and bath projects. Emphasis is placed on ergonomics and American Disability Act (ADA) considerations. Projects will utilize graphic standards as recommended by NKBA. Field trips may be required.

**ID 48 — Internship in Kitchen and Bath** 1 to 3 Units  
Degree Applicable  
(May be taken for Pass/No Pass only)  
75 to 225 hours lab  
Prerequisite: Compliance with Work Experience/Internship regulations as designated in the College Catalog.  
Corequisite: ID 40 (May have been taken previously.)  
Designed to provide the student with actual on-the-job experience in the interior design profession at a National Kitchen and Bath (NKBA) member work site, which relates to student’s classroom based learning. Placement is not guaranteed but assistance is provided by the interior design faculty. A minimum 75 paid clock hours or 60 non-paid clock hours per semester is required.

**ID 50 — Interior Design Specialized Studio** 3 Units  
Degree Applicable  
36 hours lecture  
54 hours lab  
Prerequisite: ID 26  
Integrated design experience to enhance interior design curriculum. The content of each course and the methods of study vary each semester and depends on the particular project under consideration. Students will explore advanced interior design concepts and presentation techniques. Portfolio pieces will be produced. Field trips may be required.

**ID 51 — Independent Studies in Interior Design** 1 to 3 Units  
Degree Applicable  
54 to 162 hours lab  
Prerequisite: ID 38 or ID 40.  
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. Portfolio pieces will be produced.

**ITALIAN**

**ITAL 1 — Elementary Italian** 4 Units  
Degree Applicable, CSU, UC  
72 hours lecture  
Prerequisite: ITAL 1  
Intended for students without previous exposure to Italian. Begins to develop the ability to converse, read, and write in Italian. Includes the study of essentials of pronunciation, vocabulary, idioms, and grammatical structures along with an introduction to Italian culture.

**ITAL 2 — Continuing Elementary Italian** 4 Units  
Degree Applicable, CSU, UC  
72 hours lecture  
Prerequisite: ITAL 1  
Further development of conversational, reading and writing skills in Italian with special emphasis on verbs, grammar and extension of vocabulary. Includes study of Italian culture.

**ITAL 3 — Intermediate Italian** 4 Units  
Degree Applicable, CSU, UC  
(May be taken for option of letter grade or Pass/No Pass)  
Prerequisite: ITAL 2  
Development of intermediate Italian language skills and their use as tools in exploring Italian civilization. Further study and review of grammar, exercises in word building, derivation and the extension of the active and recognition vocabularies. Extensive exposure to Italian culture, such as film, music, and history.

**ITAL 4 — Continuing Intermediate Italian** 4 Units  
Degree Applicable, CSU, UC  
(May be taken for option of letter grade or Pass/No Pass)  
Prerequisite: ITAL 3  
Further practice in speaking and writing of intermediate Italian. Extensive exposure to cultural elements from Italy such as art, music, film and history.

**ITAL 52 — Conversational Italian** 3 Units  
Degree Applicable  
(May be taken for option of letter grade or Pass/No Pass)  
Prerequisite: ITAL 1  
Development of elementary Italian conversational skills. Emphasis on collaborative activities and practical use of the language. Extensive exposure to Italian culture. Grammar is presented in context.
JAPN 1 — Elementary Japanese 4 Units
Degree Applicable, CSU, UC
72 hours lecture
Prerequisite: JAPN 1
Elementary course for students without prior exposure to Japanese. Includes the study of essentials of pronunciation, vocabulary, idioms, and grammatical structures and an introduction to Japanese culture.

JAPN 2 — Continuing Elementary Japanese 4 Units
Degree Applicable, CSU, UC
72 hours lecture
Prerequisite: JAPN 1
Further development of elementary skills in Japanese including conversational, reading, and writing skills with special emphasis on verbs, grammar, and extension of vocabulary. Includes a discussion of Japanese culture.

JAPN 3 — Intermediate Japanese 4 Units
Degree Applicable, CSU, UC
72 hours lecture
Prerequisite: JAPN 2
Continuing development of writing ability emphasizing development of thought through Kanji, Hiragana and Katakana. Additional development of cultural application of Japanese.

JAPN 4 — Continuing Intermediate Japanese 4 Units
Degree Applicable, CSU, UC
72 hours lecture
Prerequisite: JAPN 3
Continuing intermediate study and review of grammar and vocabulary. Readings and discussions of Japanese cultural topics and introduction to Japanese literature.

JAPN 5 — Advanced Japanese 4 Units
Degree Applicable, CSU, UC
72 hours lecture
Prerequisite: JAPN 4 or equivalent
Japanese communication skills with emphasis on conversational skills for daily and social settings in Japanese culture. Advanced study of grammar, vocabulary, Kanji characters, listening, speaking, reading, and writing. Extensive exposure to cultural elements from Japan such as art, music, film, and history.

JOUR 100 — Introduction to Mass Media 3 Units
(C-ID JOUR 100) Degree Applicable, CSU, UC
54 hours lecture
Prerequisite: ENGL 1A
Mass media and interrelationships with society, including history, structure, and trends. Additionally, the following topics will be covered as they pertain to the mass media: economics, law, ethics, technology, and such social issues as gender and cultural diversity.

JOUR 101 — Beginning Newswriting 3 Units
(C-ID JOUR 110) Degree Applicable, CSU, UC
(May be taken for option of letter grade or Pass/No Pass)
54 hours lecture
Prerequisite: Eligibility for ENGL 1A
Gathering, organizing and writing news in journalistic style across multiple platforms. Writing and reporting based on original interviews and research. Covering meetings, speeches and events, writing under deadline, and the use of Associated Press (AP) Style. Role of the journalist and related legal and ethical issues.

JOUR 102 — Intermediate Newswriting 3 Units
(C-ID JOUR 210) Degree Applicable, CSU, UC
(May be taken for option of letter grade or Pass/No Pass)
54 hours lecture
Prerequisite: JOUR 101
Newsgathering, organizing and writing news and features in journalistic style across multiple platforms. Public affairs, local and regional government, police, courts, arts and entertainment, and sports beats writing and reporting on and off campus.

JOUR 103 — Magazine Staff Production Lab 3 Units
Degree Applicable
(May be taken for option of letter grade or Pass/No Pass)
162 hours activity
Advisory: JOUR 110
Practical experience in a lab setting writing and producing the print and online editions of the college student magazine. Writing and editing articles; creating multimedia to accompany stories and images for print, web and broadcast.

JOUR 104 — Student Media Photography Laboratory 2 Units
Degree Applicable, CSU
(May be taken for option of letter grade or Pass/No Pass)
108 hours activity
Practical lab experience in the creation, preparation, and publishing of photos for the student newspaper, magazine, and online media. Provides learning through the use of digital cameras, Photoshop image editing, emerging technology, and scanners. Students may choose to use their own digital cameras, but digital cameras are available in the newsroom for checkout.

JOUR 105 — Editor Training 1 Unit
Degree Applicable
(May be taken for option of letter grade or Pass/No Pass)
54 hours lab
Advisory: JOUR 101
Leadership skills in a journalistic setting using the student media as a practical laboratory. Designed for students selected to serve as editors or managers of the student media.

JOUR 106 — Online Media Laboratory 2 Units
Degree Applicable, CSU
(May be taken for option of letter grade or Pass/No Pass)
108 hours activity
Practical experience in a newsroom lab setting in a variety of online publishing activities to produce and enhance the online student media. Use of computers, software and emerging technologies including audio, video, live broadcast, and wireless computer technology, as well as social media applications.
JOUR 107 — Race, Culture, Sex, and Mass Media Images 3 Units
Degree Applicable, CSU
(May be taken for option of letter grade or Pass/No Pass)
54 hours lecture
Prerequisite: Eligibility for ENGL 1A
Role of mass media and advertising in the integration of minorities, cultures, women, and lesbians, gays-bisexuals, and transgenders (LGBT) into American society. Examines how the mass media impacts public attitudes.

JOUR 108 — Writing for Public Relations 3 Units
Degree Applicable, CSU
(May be taken for option of letter grade or Pass/No Pass)
54 hours lecture
Prerequisite: JOUR 101
Theory, principles and professional practice of public relations. Concepts of planning and executing effective communication strategies including writing news releases and press pieces, and writing for and distribution through traditional, online and social media outlets, for any organization.

JOUR 109 — Public Relations Internship 3 Units
Degree Applicable
(May be taken for option of letter grade or Pass/No Pass)
225 hours lab
Advisory: JOUR 108 or JOUR 8
Field work in public relations. A minimum of 75 paid or 60 non-paid clock hours per semester of supervised work is required for each unit of credit. It is recommended that the hours per week be equally distributed throughout the semester. Students who repeat this course will improve skills through further instruction and practice.

JOUR 110 — Magazine Writing and Production 3 Units
Degree Applicable
(May be taken for option of letter grade or Pass/No Pass)
36 hours lecture
54 hours lab
Advisory: JOUR 101
Writing and production of a student-run magazine. Artistic design, harmony, creativity and layout are stressed. Writing and editing magazine features, designing pages, selecting photographs and illustrations, preparing them for production; working under deadlines and other aspects of the magazine business are included.

JOUR 111 — Broadcast News Writing 3 Units
Degree Applicable, CSU
(May be taken for option of letter grade or Pass/No Pass)
54 hours lecture
Prerequisite: JOUR 1A or JOUR 101
Intensive news gathering and writing for radio and television. Newscast planning, story organization, and functions of a broadcast newsroom are explored. Emphasis on assignments for both audio and video tape media. Lecture and discussion of issues and responsibilities confronting broadcast journalists including ethics and changing technology.

JOUR 112 — Work Experience in Journalism 3 to 4 Units
Not Degree Applicable
(May be taken for Pass/No Pass only)
225 to 300 hours lab
Prerequisite: Compliance with Work Experience regulations as designated in the College Catalog. JOUR 101 or JOUR 1A and ENGL 1A
This course is designed to provide majors with actual on-the-job experience in an approved work station which is related to classroom instruction. A minimum of 75 paid or 60 non-paid clock hours per semester of supervised work is required for each unit of credit. It is recommended that the hours per week be equally distributed throughout the semester. Students who repeat this course will improve skills through further instruction and practice.

JOUR 114 — Student News Media Staff 3 Units
(C-ID JOUR 130) Degree Applicable, CSU
(May be taken for option of letter grade or Pass/No Pass)
18 hours lecture
108 hours lab
Newsroom lab setting writing and producing the college student news publications. Researching, writing and editing articles for both publications; photography, videography, and multimedia to create stories and images for print, web and broadcast; layout, design and graphic illustrations. Basic fundamentals of journalism law and ethics.

JOUR 115 — Student News Media Editing Staff 3 Units
(C-ID JOUR 131) Degree Applicable, CSU
(May be taken for option of letter grade or Pass/No Pass)
18 hours lecture
108 hours lab
Prerequisite: JOUR 114
Management and leadership involvement in writing and producing the college student print publications. Researching, writing and editing articles for both publications; photography, videography, multimedia, and emerging new technologies to create stories and images for print, web and broadcast; art direction, layout, design and graphic illustrations. Journalism law, copyright and ethics.

JOUR 116 — Multimedia Storytelling 3 Units
Degree Applicable, CSU
(May be taken for option of letter grade or Pass/No Pass)
36 hours lecture
54 hours lab
Prerequisite: Eligibility for ENGL 1A
Multimedia storytelling with a journalism emphasis. Techniques explored include the use of video, photos, audio and text to convey interactive news and feature stories for online publishing. Cultivates skills in interviewing, sourcing and information, gathering content using photographic, audio and video recording equipment.

KINL 2 — Physical Fitness for the Physically Limited .5 to 1 Unit
Degree Applicable, CSU, UC
(May be taken for option of letter grade or Pass/No Pass)
36 to 54 hours activity
A modified physical fitness conditioning program incorporating cardiovascular training exercises, specifically designed for students with a disability or limitation. Students who repeat this course will improve their fitness level through further instruction and practice.

KINL 4 — Adaptive Aquatics 1 Unit
Degree Applicable, CSU, UC
(May be taken for option of letter grade or Pass/No Pass)
54 hours activity
Designed to assist students with a disability or limitation to develop or improve swimming skills. Appropriate for swimmers and nonswimmers.

KINL 10 — Wheelchair Sports 1 Unit
Degree Applicable, CSU, UC
(May be taken for option of letter grade or Pass/No Pass)
54 hours activity
Designed to develop and enhance sports skills and technique for students using a wheelchair. Introduction to basic rules, skills, conditioning and strategies for a variety of sports.

KINL 14 — Activity Programs for the Physically Limited .5 to 1 Unit
Degree Applicable, CSU, UC
(May be taken for option of letter grade or Pass/No Pass)
36 to 54 hours activity
Designed for students with a disability or limitation who require special assistance or equipment to participate in leisure activities. Course content will vary each semester in order to meet current students’ needs.
KINESIOLOGY: ATHLETICS

KINX 6 — Baseball - Men .5 to 3.5 Units
Degree Applicable, CSU, UC
(May be taken for option of letter grade or Pass/No Pass)
36 to 180 hours activity
Intended for Men’s Intercollegiate Baseball Team candidates to provide instruction in the components of training and conditioning related to the sport of baseball. Students who repeat this course will improve skills through further instruction and practice.

KINX 8 — Basketball - Men .5 to 3.5 Units
Degree Applicable, CSU, UC
(May be taken for option of letter grade or Pass/No Pass)
36 to 180 hours activity
Intended for Men’s Intercollegiate Basketball Team candidates to provide instruction in the components of training and conditioning related to the sport of basketball. Students who repeat this course will improve skills through further instruction and practice.

KINX 9 — Conditioning for Sports .5 to 1 Unit
Degree Applicable, CSU
(May be taken for option of letter grade or Pass/No Pass)
36 to 180 hours activity
Conditioning course for athletes to develop muscular strength and endurance, flexibility, core training skills, and cardiorespiratory fitness.

KINX 10 — Basketball - Women .5 to 3.5 Units
Degree Applicable, CSU, UC
(May be taken for option of letter grade or Pass/No Pass)
36 to 180 hours activity
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.

KINX 11 — Cross Country - Men .5 to 3.5 Units
Degree Applicable, CSU, UC
(May be taken for option of letter grade or Pass/No Pass)
36 to 180 hours activity
Intended for Men’s Intercollegiate Cross Country Team candidates to provide instruction in the components of training and conditioning related to the sport of cross country. Students who repeat this course will improve skills through further instruction and practice.

KINX 12 — Cross Country - Women .5 to 3.5 Units
Degree Applicable, CSU, UC
(May be taken for option of letter grade or Pass/No Pass)
36 to 180 hours activity
Intended for Women’s Intercollegiate Cross Country Team candidates to provide instruction in the components of training and conditioning related to the sport of cross country. Students who repeat this course will improve skills through further instruction and practice.

KINX 16 — Football - Men .5 to 3.5 Units
Degree Applicable, CSU, UC
(May be taken for option of letter grade or Pass/No Pass)
36 to 180 hours activity
Intended for Men’s Intercollegiate Football Team candidates to provide instruction in the components of training and conditioning related to the sport of football. Students who repeat this course will improve skills through further instruction and practice.

KINX 18 — Golf - Men .5 to 3.5 Units
Degree Applicable, CSU, UC
(May be taken for option of letter grade or Pass/No Pass)
36 to 180 hours activity
Intended for Men’s Intercollegiate Golf Team candidates to provide instruction in the components and training related to the sport of golf. Classes will be held off campus and require some traveling. Students who repeat this course will improve skills through further instruction and practice. Students must have their own golf clubs.

KINX 19 — Golf - Women .5 to 3.5 Units
Degree Applicable, CSU, UC
(May be taken for option of letter grade or Pass/No Pass)
36 to 180 hours activity
Intended for Women’s Intercollegiate Golf Team candidates to provide instruction in the components and training related to the sport of golf. Classes will be held off campus and require some traveling. Students who repeat this course will improve skills through further instruction and practice. Students must have their own golf clubs.

KINX 24 — Soccer - Men .5 to 3.5 Units
Degree Applicable, CSU, UC
(May be taken for option of letter grade or Pass/No Pass)
36 to 180 hours activity
Intended for Men’s Intercollegiate Soccer Team candidates to provide instruction in the components of training and conditioning related to the sport of soccer. Students who repeat this course will improve skills through further instruction and practice.
### Course Descriptions

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Activity Hours</th>
<th>Credit Policy</th>
<th>Intended For</th>
</tr>
</thead>
<tbody>
<tr>
<td>KINX 25</td>
<td>Soccer - Women</td>
<td>.5</td>
<td>36 to 180</td>
<td>Degree Applicable, CSU, UC</td>
<td>Women’s Intercollegiate Soccer Team candidates</td>
</tr>
<tr>
<td>KINX 26</td>
<td>Softball - Women</td>
<td>.5</td>
<td>36 to 180</td>
<td>Degree Applicable, CSU, UC</td>
<td>Women’s Softball Team candidates</td>
</tr>
<tr>
<td>KINX 28</td>
<td>Swimming - Men</td>
<td>.5</td>
<td>36 to 180</td>
<td>Degree Applicable, CSU, UC</td>
<td>Men’s Intercollegiate Swim Team candidates</td>
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<tr>
<td>KINX 30</td>
<td>Swimming - Women</td>
<td>.5</td>
<td>36 to 180</td>
<td>Degree Applicable, CSU, UC</td>
<td>Women’s Intercollegiate Swim Team candidates</td>
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<tr>
<td>KINX 32</td>
<td>Tennis - Men</td>
<td>.5</td>
<td>36 to 180</td>
<td>Degree Applicable, CSU, UC</td>
<td>Men’s Intercollegiate Tennis Team candidates</td>
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<tr>
<td>KINX 34</td>
<td>Tennis - Women</td>
<td>.5</td>
<td>36 to 180</td>
<td>Degree Applicable, CSU, UC</td>
<td>Women’s Intercollegiate Tennis Team candidates</td>
</tr>
<tr>
<td>KINX 38</td>
<td>Track and Field - Men</td>
<td>.5</td>
<td>36 to 180</td>
<td>Degree Applicable, CSU, UC</td>
<td>Men’s Intercollegiate Track and Field Team candidates</td>
</tr>
<tr>
<td>KINX 42</td>
<td>Track and Field - Women</td>
<td>.5</td>
<td>36 to 180</td>
<td>Degree Applicable, CSU, UC</td>
<td>Women’s Intercollegiate Track and Field Team candidates</td>
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<tr>
<td>KINX 44</td>
<td>Volleyball - Men</td>
<td>.5</td>
<td>36 to 180</td>
<td>Degree Applicable, CSU, UC</td>
<td>Men’s Intercollegiate Volleyball Team candidates</td>
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<tr>
<td>KINX 46</td>
<td>Volleyball - Women</td>
<td>.5</td>
<td>36 to 180</td>
<td>Degree Applicable, CSU, UC</td>
<td>Women’s Intercollegiate Volleyball Team candidates</td>
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<tr>
<td>KINX 48</td>
<td>Water Polo - Men</td>
<td>.5</td>
<td>36 to 180</td>
<td>Degree Applicable, CSU, UC</td>
<td>Men’s Intercollegiate Water Polo Team candidates</td>
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<tr>
<td>KINX 49</td>
<td>Water Polo - Women</td>
<td>.5</td>
<td>36 to 180</td>
<td>Degree Applicable, CSU, UC</td>
<td>Women’s Intercollegiate Water Polo Team candidates</td>
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<tr>
<td>KINX 50</td>
<td>Wrestling - Men</td>
<td>.5</td>
<td>36 to 180</td>
<td>Degree Applicable, CSU, UC</td>
<td>Men’s Intercollegiate Wrestling Team candidates</td>
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<tr>
<td>KINX 70</td>
<td>Pep Squad</td>
<td>.5</td>
<td>36 to 180</td>
<td>Degree Applicable, CSU, UC</td>
<td>Rally units who are directly supportive of Mt. SAC activities</td>
</tr>
<tr>
<td>KINX 88</td>
<td>Pre-Season Athletics</td>
<td>.5</td>
<td>36 to 180</td>
<td>Degree Applicable, CSU, UC</td>
<td>Pre-season intercollegiate athletics. Enrollment is limited to athletic team candidates and includes, sport specific aerobic and anaerobic conditioning, drill technique, strength conditioning, speed development and game play. Students who repeat this course will improve skills and fitness through further instruction and practice.</td>
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<tr>
<td>Course Code</td>
<td>Title</td>
<td>Units</td>
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<tr>
<td>KINF 2A —</td>
<td>Body Building - Beginning</td>
<td>.5 to 1</td>
<td>Degree Applicable, CSU, UC (May be taken for option of letter grade or Pass/No Pass) 36 to 54 hours activity Fundamentals of strength development and physical conditioning.</td>
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<tr>
<td>KINF 2B —</td>
<td>Body Building - Advanced</td>
<td>.5 to 1</td>
<td>Degree Applicable, CSU, UC (May be taken for option of letter grade or Pass/No Pass) 36 to 54 hours activity Advanced strength development and physical conditioning.</td>
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<tr>
<td>KINF 4 —</td>
<td>Cardiovascular Conditioning</td>
<td>.5 to 1</td>
<td>Degree Applicable, CSU, UC (May be taken for option of letter grade or Pass/No Pass) 36 to 54 hours activity Designed to improve fitness levels through cardiovascular activities.</td>
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<tr>
<td>KINF 6A —</td>
<td>Physical Fitness - Beginning</td>
<td>.5 to 1</td>
<td>Degree Applicable, CSU, UC (May be taken for option of letter grade or Pass/No Pass) 36 to 54 hours activity Presents beginning components of physical fitness. Students identify individual fitness level, participate in activities designed to improve overall fitness and use cardiovascular equipment to achieve fitness goals.</td>
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<tr>
<td>KINF 6B —</td>
<td>Physical Fitness - Intermediate</td>
<td>.5 to 1</td>
<td>Degree Applicable, CSU, UC (May be taken for option of letter grade or Pass/No Pass) 36 to 36 hours activity Develops intermediate levels of physical fitness. Students analyze individual fitness level and participate in activities designed to improve overall fitness.</td>
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<tr>
<td>KINF 6C —</td>
<td>Physical Fitness - Advanced</td>
<td>.5 to 1</td>
<td>Degree Applicable, CSU, UC (May be taken for option of letter grade or Pass/No Pass) 36 to 54 hours activity Advanced components of physical fitness. Students integrate fitness components into a personal fitness program and participate in activities designed to improve overall fitness.</td>
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<tr>
<td>KINF 9 —</td>
<td>Conditioning for Sports</td>
<td>.5 to 1</td>
<td>Degree Applicable, CSU, UC (May be taken for option of letter grade or Pass/No Pass) 36 to 54 hours activity A conditioning course for students and athletes to develop muscular strength and endurance, flexibility, core training skills, and cardiorespiratory fitness. Students who repeat this course will improve skills through further instruction and practice.</td>
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<tr>
<td>KINF 10 —</td>
<td>Weight Training</td>
<td>.5 to 1</td>
<td>Degree Applicable, CSU, UC (May be taken for option of letter grade or Pass/No Pass) 36 to 54 hours activity Muscular conditioning program using machines and free weights.</td>
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<tr>
<td>KINF 13 —</td>
<td>Exercise Dynamics</td>
<td>2</td>
<td>Degree Applicable, CSU, UC (May be taken for option of letter grade or Pass/No Pass) 108 hours activity Increased fitness and body conditioning with increased frequency and duration of circuit training and aerobic activity; continued overview of health concepts; heightened emphasis on nutrition, weight management, stress reduction and the benefit of exercise on overall health.</td>
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<tr>
<td>KINF 17 —</td>
<td>Fitness Walking</td>
<td>.5 to 1</td>
<td>Degree Applicable, CSU, UC (May be taken for option of letter grade or Pass/No Pass) 36 to 54 hours activity Fitness walking, a low-impact aerobic activity, as part of an overall wellness program. The class walks on courses around Mt. San Antonio College and the surrounding community. Includes nutrition, personal skill development, weight management, cardiovascular endurance, stress management, and goal setting.</td>
<td></td>
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</tr>
<tr>
<td>KINF 19 —</td>
<td>Strength Training</td>
<td>2</td>
<td>Degree Applicable, CSU, UC (May be taken for option of letter grade or Pass/No Pass) 108 hours activity Designed for students concentrating on strength development through various types of exercise. Students who repeat this course will improve skills through further instruction and practice.</td>
<td></td>
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</tr>
<tr>
<td>KINF 22 —</td>
<td>Total Fitness</td>
<td>2</td>
<td>Degree Applicable, CSU, UC (May be taken for option of letter grade or Pass/No Pass) 108 hours activity Fitness training with increased frequency and duration. Includes nutrition, exercise concepts, stress management, cardiorespiratory performance, muscle strength and flexibility training.</td>
<td></td>
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</tr>
<tr>
<td>KINF 25 —</td>
<td>Core Performance and Foundation Movement</td>
<td>1 to 2</td>
<td>Degree Applicable, CSU, UC (May be taken for option of letter grade or Pass/No Pass) 54 to 108 hours activity Body core training and foundation movement for students interested in improving their fitness level. Training and strengthening of the muscles that stabilize, align, and move the trunk.</td>
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</tr>
<tr>
<td>KINF 34 —</td>
<td>Cardiorespiratory Training Beginning</td>
<td>.5 to 2</td>
<td>Degree Applicable, CSU, UC (May be taken for option of letter grade or Pass/No Pass) 36 to 108 hours activity Individualized exercise programs designed to improve cardiorespiratory performance.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>KINF 34A —</td>
<td>Cardiorespiratory Training Intermediate</td>
<td>.5 to 2</td>
<td>Degree Applicable, CSU, UC (May be taken for option of letter grade or Pass/No Pass) 36 to 108 hours activity Beginning individualized cardiovascular exercise for students needing to start fitness training at a fundamental or low level of intensity. Utilizes stationary bikes, treadmills, elliptical trainers, step climbers and/or rowing machines as training modalities. This course will not challenge students with above average fitness abilities.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>KINF 34B —</td>
<td>Cardiorespiratory Training Intermediate</td>
<td>.5 to 2</td>
<td>Degree Applicable, CSU, UC (May be taken for option of letter grade or Pass/No Pass) 36 to 108 hours activity Individualized cardiovascular exercise for students able to participate in aerobic activity at a moderate to high fitness level of intensity. Utilizes stationary bikes, treadmills, elliptical trainers, step climbers and/or rowing machines as training modalities.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>KINF 36 —</td>
<td>Circuit Training</td>
<td>.5 to 2</td>
<td>Degree Applicable, CSU, UC (May be taken for option of letter grade or Pass/No Pass) 36 to 108 hours activity Muscular strength and endurance exercise on circuit training equipment.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Course Descriptions

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Units</th>
<th>Degree Applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>KINF 36A</td>
<td>Circuit Training Beginning</td>
<td>.5</td>
<td>CSU</td>
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<td></td>
<td>(May be taken for option of letter grade</td>
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<tr>
<td></td>
<td>or Pass/No Pass)</td>
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<td></td>
</tr>
<tr>
<td></td>
<td>36 to 108 hours lab</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Beginning Circuit Training for individuals with little or no weight training experience. Course is for students needing to begin at a fundamental or low level intensity of strength training. Utilizes circuit training machines, floor core work, and light dumbbells. This course will not challenge students with above average fitness abilities.</td>
<td></td>
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<tr>
<td>KINF 36B</td>
<td>Circuit Training Intermediate</td>
<td>36</td>
<td>CSU</td>
</tr>
<tr>
<td></td>
<td>(May be taken for option of letter grade</td>
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<tr>
<td></td>
<td>or Pass/No Pass)</td>
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</tr>
<tr>
<td></td>
<td>36 to 108 hours lab</td>
<td></td>
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</tr>
<tr>
<td></td>
<td>Individualized circuit training for students with previous strength training experience and capable of performing moderate to high levels of strength development on circuit training equipment. Students need to be familiar with strength and repetition ratios. Utilizes circuit training machines, floor core work, medicine balls, exercise balls, Bosu Balance Trainer and dumbbells.</td>
<td></td>
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</tr>
<tr>
<td>KINF 38</td>
<td>Aerobics</td>
<td>.5</td>
<td>CSU, UC</td>
</tr>
<tr>
<td></td>
<td>(May be taken for option of letter grade</td>
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<tr>
<td></td>
<td>or Pass/No Pass)</td>
<td></td>
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</tr>
<tr>
<td></td>
<td>36 to 108 hours activity</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Group aerobic exercise to improve cardiorespiratory efficiency.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>KINF 38A</td>
<td>Aerobics-Beginning</td>
<td>.5</td>
<td>CSU</td>
</tr>
<tr>
<td></td>
<td>(May be taken for option of letter grade</td>
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<td></td>
<td>or Pass/No Pass)</td>
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</tr>
<tr>
<td></td>
<td>36 to 54 hours lab</td>
<td></td>
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<tr>
<td></td>
<td>Beginning group exercise to improve cardiovascular fitness using aerobic activity. This course is designed for students with little or no previous group fitness experience and have a need to start at a fundamental level of exercise and lower exercise intensity levels. This course will not challenge students with average to above average fitness abilities.</td>
<td></td>
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</tr>
<tr>
<td>KINF 38B</td>
<td>Aerobics</td>
<td>.5</td>
<td>CSU</td>
</tr>
<tr>
<td></td>
<td>(May be taken for option of letter grade</td>
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<tr>
<td></td>
<td>or Pass/No Pass)</td>
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<tr>
<td></td>
<td>36 to 54 hours lab</td>
<td></td>
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<tr>
<td></td>
<td>Group aerobic exercise for students with experience in group fitness and able to exercise at moderate levels of fitness and mid to high target heart rate training zones. Class includes various types of high and low impact aerobic exercises including choreographed movements to music within a group fitness setting. Endurance strength training includes the use of elastic bands, light hand held weights, core exercises and weighted bars.</td>
<td></td>
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<tr>
<td>KINF 40</td>
<td>Golf</td>
<td>.5</td>
<td>Not Degree Applicable</td>
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<tr>
<td></td>
<td>(May be taken for option of letter grade</td>
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<tr>
<td></td>
<td>or Pass/No Pass)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>36 to 54 hours activity</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Golf fundamentals with an emphasis on technique, strategy, and rules.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>KINF 41</td>
<td>Physical Training for the Basic Fire Academy</td>
<td>2.5</td>
<td>CSU</td>
</tr>
<tr>
<td></td>
<td>(May be taken for option of letter grade</td>
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<tr>
<td></td>
<td>or Pass/No Pass)</td>
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</tr>
<tr>
<td></td>
<td>133 hours activity</td>
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<tr>
<td></td>
<td>Prepares the Basic Fire Academy student for the physical demands of the fire service. Through a supervised individualized training program, the student acquires cardiovascular endurance, flexibility and strength.</td>
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</tr>
<tr>
<td>KINF 50</td>
<td>Physical Skills Preparation</td>
<td>2</td>
<td>CSU</td>
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<tr>
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<td>(May be taken for option of letter grade</td>
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<td></td>
<td>or Pass/No Pass)</td>
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<td></td>
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<tr>
<td></td>
<td>108 hours activity</td>
<td></td>
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<tr>
<td></td>
<td>Through supervised and individualized training programs, the student will develop the necessary conditioning levels to pass entrance examinations in Administration of Justice and Fire Technology fields.</td>
<td></td>
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</tr>
<tr>
<td>KINF 51</td>
<td>Agility Testing Preparation</td>
<td>1</td>
<td>CSU</td>
</tr>
<tr>
<td></td>
<td>(May be taken for option of letter grade</td>
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<tr>
<td></td>
<td>or Pass/No Pass)</td>
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<td></td>
</tr>
<tr>
<td></td>
<td>71 hours activity</td>
<td></td>
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<tr>
<td></td>
<td>A training program directed toward physical agility testing approximating the testing process required by various law enforcement and fire agencies.</td>
<td></td>
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<tr>
<td>KINF 52</td>
<td>Fitness and Conditioning</td>
<td>1</td>
<td>CSU</td>
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<tr>
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<td>(May be taken for option of letter grade</td>
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<tr>
<td></td>
<td>or Pass/No Pass)</td>
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<td></td>
</tr>
<tr>
<td></td>
<td>71 hours activity</td>
<td></td>
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</tr>
<tr>
<td></td>
<td>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.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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### KINESIOLOGY: INDIVIDUAL

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Units</th>
<th>Degree Applicable</th>
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<tbody>
<tr>
<td>KINI 4A</td>
<td>Badminton - Beginning</td>
<td>.5</td>
<td>CSU, UC</td>
</tr>
<tr>
<td></td>
<td>(May be taken for option of letter grade</td>
<td></td>
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<tr>
<td></td>
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<tr>
<td></td>
<td>36 to 54 hours activity</td>
<td></td>
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</tr>
<tr>
<td></td>
<td>Beginning badminton fundamentals and techniques, including singles and doubles play.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>KINI 4B</td>
<td>Badminton - Intermediate</td>
<td>.5</td>
<td>CSU, UC</td>
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<tr>
<td></td>
<td>(May be taken for option of letter grade</td>
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<td></td>
<td>or Pass/No Pass)</td>
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<tr>
<td></td>
<td>36 to 54 hours activity</td>
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<tr>
<td></td>
<td>Intermediate badminton techniques, including singles and doubles play.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>KINI 4C</td>
<td>Badminton - Advanced</td>
<td>.5</td>
<td>CSU, UC</td>
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<tr>
<td></td>
<td>(May be taken for option of letter grade</td>
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<tr>
<td></td>
<td>or Pass/No Pass)</td>
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<tr>
<td></td>
<td>36 to 54 hours activity</td>
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<td></td>
</tr>
<tr>
<td></td>
<td>Advanced badminton techniques, including singles and doubles tournament play.</td>
<td></td>
<td></td>
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<tr>
<td>KINI 18A</td>
<td>Golf - Beginning</td>
<td>.5</td>
<td>CSU, UC</td>
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<tr>
<td></td>
<td>(May be taken for option of letter grade</td>
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<td></td>
<td>or Pass/No Pass)</td>
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<tr>
<td></td>
<td>36 to 54 hours activity</td>
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<tr>
<td></td>
<td>Golf fundamentals with an emphasis on technique, strategy, and rules.</td>
<td></td>
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<tr>
<td>KINI 18B</td>
<td>Golf - Intermediate</td>
<td>.5</td>
<td>CSU, UC</td>
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<td>(May be taken for option of letter grade</td>
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<td></td>
<td>or Pass/No Pass)</td>
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<tr>
<td></td>
<td>36 to 54 hours activity</td>
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<tr>
<td></td>
<td>Instruction to individuals who have had previous golf experience and have played a regulation eighteen-hole course. Classes will be held at sites both on and off the Mt. SAC campus. Golf clubs and off site classes required.</td>
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</tr>
<tr>
<td>KINI 18C</td>
<td>Golf - Advanced</td>
<td>.5</td>
<td>CSU, UC</td>
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<tr>
<td></td>
<td>(May be taken for option of letter grade</td>
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<tr>
<td></td>
<td>or Pass/No Pass)</td>
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<tr>
<td></td>
<td>36 to 54 hours activity</td>
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<tr>
<td></td>
<td>Instruction and practice for the proficient golfer (Sub 15 Handicap). Emphasis on golf swing analysis. Golf classes will be held at sites both on and off the Mt. SAC campus. Clubs and off-campus classes required.</td>
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</tbody>
</table>


**KINI 25 — Mixed Martial Arts**  
Degree Applicable, CSU, UC  
(May be taken for option of letter grade or Pass/No Pass)  
36 to 54 hours activity  
The sport of mixed martial arts. An integration of striking and close-combat martial arts.

**KINI 27A — Jeet Kune Do - Beginning**  
Degree Applicable, CSU, UC  
(May be taken for option of letter grade or Pass/No Pass)  
36 to 54 hours activity  
Intermediate principles of Bruce Lee's martial art. Emphasis on footwork, distance, and technique for combat efficiency in self-defense.

**KINI 27B — Jeet Kune Do - Intermediate**  
Degree Applicable, CSU, UC  
(May be taken for option of letter grade or Pass/No Pass)  
36 to 54 hours activity  
Intermediate principles of Bruce Lee’s martial art. Intermediate level footwork, distance, and technique (punching, kicking, and grappling) for combat efficiency.

**KINI 29 — Self Defense/Martial Arts**  
Degree Applicable, CSU, UC  
(May be taken for option of letter grade or Pass/No Pass)  
36 to 54 hours activity  
Basic concepts of self-defense and martial arts. Covers techniques in three ranges of combat: grappling, kick/punch, and weapons range.

**KINI 30A — Filipino Martial Arts - Beginning**  
Degree Applicable, CSU, UC  
(May be taken for option of letter grade or Pass/No Pass)  
36 to 54 hours activity  
The Filipino martial arts of Esgrima and Arnis. Basic weapons training for defense in armed and unarmed scenarios.

**KINI 30B — Filipino Martial Arts - Intermediate**  
Degree Applicable, CSU, UC  
(May be taken for option of letter grade or Pass/No Pass)  
36 to 54 hours activity  
The Filipino martial arts of Esgrima and Arnis. Intermediate weapons training for defense in armed and unarmed scenarios.

**KINI 31A — Jiujitsu - Beginning**  
Degree Applicable, CSU, UC  
(May be taken for option of letter grade or Pass/No Pass)  
36 to 54 hours activity  
Fundamentals of Brazilian Jiujitsu. Basic positions, breakdowns, training techniques, strategy, finishing holds, competition, history, and philosophy. Students are required to provide their own Judo/Jiujitsu gi uniform.

**KINI 31B — Jiujitsu - Intermediate**  
Degree Applicable, CSU, UC  
(May be taken for option of letter grade or Pass/No Pass)  
36 to 54 hours activity  
Intermediate Brazilian Jiujitsu. Transitioning from positions, countering submissions and finishing holds, application of strategy, competition, and philosophy. Students are required to provide their own Judo/Jiujitsu gi uniform.

**KINI 33 — Kickboxing**  
Degree Applicable, CSU, UC  
(May be taken for option of letter grade or Pass/No Pass)  
36 to 54 hours activity  
Presents the martial sport of kickboxing. Includes techniques for offense and defense, cardiovascular endurance, strategy and training modes.

**KINI 34 — Women's Self Defense**  
Degree Applicable, CSU, UC  
(May be taken for option of letter grade or Pass/No Pass)  
36 to 54 hours activity  
Techniques for personal protection and safety with emphasis on defensive tactics for women.

**KINI 37A — Tai Chi Chuan - Beginning**  
Degree Applicable, CSU, UC  
(May be taken for option of letter grade or Pass/No Pass)  
36 to 54 hours activity  
Fundamentals of tai chi chuan as a martial art exercise for health and fitness, meditation, relaxation and self defense. Basic therapeutic exercises in the tai chi chuan format will be presented.

**KINI 37B — Tai Chi Chuan - Intermediate**  
Degree Applicable, CSU, UC  
(May be taken for option of letter grade or Pass/No Pass)  
36 to 54 hours activity  
Intermediate tai chi chuan fundamentals and principles. Includes instruction in a traditional long form. Students who repeat this course will improve skills through further instruction and practice.

**KINI 37C — Tai Chi Chuan - Advanced**  
Degree Applicable, CSU, UC  
(May be taken for option of letter grade or Pass/No Pass)  
36 to 54 hours activity  
Instruction and practice for the experienced Tai Chi Chuan practitioner. Emphasis will be on the sword form.

**KINI 38 — Wrestling**  
Degree Applicable, CSU, UC  
(May be taken for option of letter grade or Pass/No Pass)  
36 to 54 hours activity  
Wrestling skills, fundamentals and match competition.

**KINI 40A — Tennis - Beginning**  
Degree Applicable, CSU, UC  
(May be taken for option of letter grade or Pass/No Pass)  
36 to 54 hours activity  
Beginning tennis fundamentals and techniques.

**KINI 40B — Tennis - Intermediate**  
Degree Applicable, CSU, UC  
(May be taken for option of letter grade or Pass/No Pass)  
36 to 54 hours activity  
Intermediate tennis techniques and strategies for the individual who has previous experience and instruction in tennis.

**KINI 40C — Tennis - Advanced**  
Degree Applicable, CSU, UC  
(May be taken for option of letter grade or Pass/No Pass)  
36 to 54 hours activity  
Advanced tennis techniques and strategies for the experienced player.

**KINI 44 — Track and Field**  
Degree Applicable, CSU, UC  
(May be taken for option of letter grade or Pass/No Pass)  
36 to 54 hours activity  
Basic instruction, conditioning and training for the various track and field events.

**KINI 48 — Wrestling**  
Degree Applicable, CSU, UC  
(May be taken for option of letter grade or Pass/No Pass)  
36 to 54 hours activity  
Yoga instruction with emphasis on yoga postures, breathing techniques, relaxation strategies and philosophy.

**KINI 51 — Iyengar Yoga**  
Degree Applicable, CSU, UC  
(May be taken for option of letter grade or Pass/No Pass)  
36 to 54 hours activity  
Fundamentals of Iyengar yoga. Basic postures, alignments, strategy, history and philosophy.
### KINESIOLOGY: TEAM SPORT

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Units</th>
<th>Degree Applicable, CSU, UC</th>
<th>Hours of Activity</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>KINS 2</td>
<td>Basketball</td>
<td>0.5-1</td>
<td>Degree Applicable, CSU, UC</td>
<td>36-54</td>
<td>May be taken for option of letter grade or Pass/No Pass. Basic skills, fundamentals, rules and strategies for team play in basketball.</td>
</tr>
<tr>
<td>KINS 10</td>
<td>Soccer</td>
<td>0.5-1</td>
<td>Degree Applicable, CSU, UC</td>
<td>36-54</td>
<td>May be taken for option of letter grade or Pass/No Pass. Soccer skills including dribbling, passing, collecting, shooting, goalkeeping, and game play.</td>
</tr>
<tr>
<td>KINS 10A</td>
<td>Beginning Soccer</td>
<td>0.5-1</td>
<td>Degree Applicable, CSU, UC</td>
<td>36-54</td>
<td>May be taken for option of letter grade or Pass/No Pass. Fundamental technical skills and tactics to students with little or no soccer ability.</td>
</tr>
<tr>
<td>KINS 13</td>
<td>Football</td>
<td>0.5-1</td>
<td>Degree Applicable, CSU, UC</td>
<td>36-54</td>
<td>May be taken for option of letter grade or Pass/No Pass. Basic skills, rules and strategies for team play in football.</td>
</tr>
<tr>
<td>KINS 16</td>
<td>Softball</td>
<td>0.5-1</td>
<td>Degree Applicable, CSU, UC</td>
<td>36-54</td>
<td>May be taken for option of letter grade or Pass/No Pass. Basic skills, rules and strategies for team play in the sport of slow-pitch softball.</td>
</tr>
<tr>
<td>KINS 24A</td>
<td>Volleyball - Beginning</td>
<td>0.5-1</td>
<td>Degree Applicable, CSU, UC</td>
<td>36-54</td>
<td>May be taken for option of letter grade or Pass/No Pass. Techniques and strategies of volleyball including passing, setting, hitting, and serving.</td>
</tr>
<tr>
<td>KINS 24B</td>
<td>Volleyball - Intermediate</td>
<td>0.5-1</td>
<td>Degree Applicable, CSU, UC</td>
<td>36-54</td>
<td>May be taken for option of letter grade or Pass/No Pass. Designed for individuals with previous experience in techniques and strategies of volleyball.</td>
</tr>
<tr>
<td>KINS 24C</td>
<td>Volleyball - Advanced</td>
<td>0.5-1</td>
<td>Degree Applicable, CSU, UC</td>
<td>36-54</td>
<td>May be taken for option of letter grade or Pass/No Pass. Designed for individuals with previous experience in advanced techniques and strategies of volleyball.</td>
</tr>
<tr>
<td>KIN 3</td>
<td>First Aid and CPR</td>
<td>3</td>
<td>Degree Applicable, CSU, UC</td>
<td>54</td>
<td>Advisory: Eligibility for ENGL 68. Training in caring for victims of injuries, sudden illness and other medical emergencies; includes Community CPR. Students who successfully pass all requirements will earn the appropriate American Red Cross First Aid Certificate and/or CPR Certificate.</td>
</tr>
<tr>
<td>KIN 5</td>
<td>Advanced First Aid/CPR/Emergency Response</td>
<td>3</td>
<td>Degree Applicable, CSU, UC</td>
<td>54</td>
<td>Advisory: Eligibility for ENGL 68. First responder training, training and certifications, including laboratory experience for developing the First Aid (FA) and CPR skills required by public safety personnel, athletic trainers, emergency response team members, flight attendants, coaches and nurses. Students who successfully pass all requirements will receive an American Red Cross (ARC) Certificate in Emergency Response and/or CPR for the Professional Rescuer.</td>
</tr>
<tr>
<td>KIN 13</td>
<td>Sports Officiating</td>
<td>3</td>
<td>Degree Applicable, CSU, UC</td>
<td>54</td>
<td>Theory of basic physiological concepts as they pertain to exercise training and the prescription of individual fitness programs.</td>
</tr>
<tr>
<td>KIN 15</td>
<td>Administration of Fitness Programs</td>
<td>2</td>
<td>Degree Applicable, CSU</td>
<td>36</td>
<td>Leadership training and administrative skills related to fitness specialists, personal trainers and physical educators. Current issues, curriculum topics and practical skills related to careers in fitness and physical education.</td>
</tr>
<tr>
<td>KIN 17</td>
<td>Introduction to Physical Education</td>
<td>3</td>
<td>Degree Applicable, CSU, UC</td>
<td>54</td>
<td>Principles and techniques of strength training and cardiovascular conditioning. Includes both theory and practical instruction of strength training and cardiovascular exercise, special needs considerations, professional responsibilities and liabilities, skills needed for those entering the fitness training job field.</td>
</tr>
<tr>
<td>Course Code</td>
<td>Title</td>
<td>Units</td>
<td>Requirements</td>
<td>Description</td>
<td></td>
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<td>-----------------------------------------------------------------------------</td>
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</tr>
<tr>
<td>KIN 41</td>
<td>Techniques of Teaching Weight Training</td>
<td>2</td>
<td>Degree Applicable, CSU</td>
<td>36 hours lecture. Part of the Fitness Specialist Certificate covering the principles and techniques of teaching weight training. Includes muscle structure and function, training sequences, free weight and machine equipment, safety factors, including contraindications for exercise.</td>
<td></td>
</tr>
<tr>
<td>KIN 44</td>
<td>Theory of Coaching</td>
<td>3</td>
<td>Degree Applicable, CSU, UC</td>
<td>54 hours lecture. Coaching issues and problems facing the coach today and includes the philosophy, theory, and principles of developing and maintaining an athletic program. Designed for coaches at varying levels from youth league to high school varsity.</td>
<td></td>
</tr>
<tr>
<td>KIN 50</td>
<td>Mt. Sac Fire Academy Physical Ability Entrance Exam</td>
<td>1</td>
<td>Degree Applicable</td>
<td>(May be taken for Pass/No Pass only) 9 hours lecture 9 hours activity Physical ability test for admission into the Mt. SAC Fire Academy. Candidates must be approved by the Fire Technology Office.</td>
<td></td>
</tr>
<tr>
<td>KIN 81</td>
<td>Work Experience for Coaching</td>
<td>2</td>
<td>Degree Applicable</td>
<td>(May be taken for option of letter grade or Pass/No Pass) 150 hours lab. Prerequisite: Compliance with Work Experience regulations as designated in College Catalog. Provides coaching and physical education students with on-the-job experience in approved worksites related to coaching. A minimum of 75 paid or 60 non-paid clock hours per semester is required for each unit of credit. Work experience placement is not guaranteed, but assistance is provided by the Coaching Certificate faculty advisor.</td>
<td></td>
</tr>
<tr>
<td>KIN 85</td>
<td>Fitness Specialist Internship</td>
<td>1</td>
<td>Degree Applicable</td>
<td>(May be taken for option of letter grade or Pass/No Pass) 75 hours lab. Provides fitness specialist students with actual on-the-job skill development in fitness testing, analysis and prescription. A minimum of 75 paid or 60 non-paid clock hours per semester of supervised work is required for each unit of credit. It is recommended that the hours per week be equally distributed throughout the semester. Work experience placement is not guaranteed, but assistance is provided by the Fitness Certificate faculty advisor.</td>
<td></td>
</tr>
<tr>
<td>KIN 92</td>
<td>Work Experience - Athletic Training</td>
<td>2 to 3</td>
<td>Degree Applicable</td>
<td>(May be taken for Pass/No Pass only) 120 to 239 hours lab. Prerequisite: KIN 19 and compliance with Work Experience regulations as designated in College Catalog. Provides Athletic Trainer Aides and Kinesiology students with actual on-the-job experience in an approved worksite related to classroom instruction. A minimum of 75 paid or 60 non-paid clock hours per semester of supervised work is required for each unit of credit. Instructor approval required.</td>
<td></td>
</tr>
<tr>
<td>LATN 1</td>
<td>Elementary Latin</td>
<td>4</td>
<td>Degree Applicable, CSU, UC</td>
<td>54 hours lecture. Advisory: Eligibility for READ 90 or eligibility for AMLA 33R. 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. For students with little or no prior experience in Latin.</td>
<td></td>
</tr>
<tr>
<td>LATN 2</td>
<td>Continuing Elementary Latin</td>
<td>4</td>
<td>Degree Applicable, CSU, UC</td>
<td>72 hours lecture. Prerequisite: LATN 1. Advisory: Eligibility for READ 90 or eligibility for AMLA 33R. Second semester of coursework for students with prior coursework in Latin. Development of vocabulary, grammar, and reading. Explores Roman history and culture.</td>
<td></td>
</tr>
<tr>
<td>LEAD 55</td>
<td>Exploring Leadership</td>
<td>3</td>
<td>Degree Applicable, CSU</td>
<td>54 hours lecture. 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 any environment including college life.</td>
<td></td>
</tr>
<tr>
<td>LERN 48</td>
<td>Basic Math Skills Review</td>
<td>3</td>
<td>Not Degree Applicable</td>
<td>54 hours lecture. Prerequisite: LERN 49 or passing score on current placement test. Improves knowledge of basic math. Includes operations and applied problems in whole numbers, fractions, decimals, proportions, percentages, and integers. Covers math study strategies such as learning styles and self-assessment.</td>
<td></td>
</tr>
<tr>
<td>LERN 49</td>
<td>Math Skills Review</td>
<td>3</td>
<td>Not Degree Applicable</td>
<td>54 hours lecture. Prerequisite: LERN 48 or passing score on current placement test. Improves knowledge of basic math. Includes operations and applied problems in whole numbers, fractions, decimals, proportions, percentages, and integers. Covers math study strategies such as learning styles and self-assessment.</td>
<td></td>
</tr>
<tr>
<td>LERN 61</td>
<td>Skills Development Laboratory</td>
<td>1</td>
<td>Not Degree Applicable</td>
<td>54 hours lab. Individualized instruction in the following subjects: reading comprehension, writing, elementary math, algebra review, study techniques (note-taking, goal-setting, test-taking, etc.).</td>
<td></td>
</tr>
<tr>
<td>LERN 62</td>
<td>Skills Development Laboratory</td>
<td>2</td>
<td>Not Degree Applicable</td>
<td>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).</td>
<td></td>
</tr>
<tr>
<td>LERN 81</td>
<td>Improving Writing</td>
<td>3</td>
<td>Not Degree Applicable</td>
<td>54 hours lecture. Assist students who wish to improve prewriting, writing, editing, and revising skills. Provide instruction in content and structure of sentences, paragraphs, and essays; emphasize development in writing through the integration of grammar and critical thinking.</td>
<td></td>
</tr>
</tbody>
</table>
### LEARNING COMMUNITIES

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Units</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>LCOM 80</td>
<td>Learning Communities: Individual Connections</td>
<td>1 Unit</td>
<td>18 hours lecture&lt;br&gt;Explores connections between self, courses, and learning community themes. Develops social networking skills, cognitive strategies, academic behaviors and confidence, and team building as related to success within a learning community. Concurrent enrollment in a learning community is required.</td>
</tr>
<tr>
<td>LCOM 90</td>
<td>Learning Communities: Campus Connections</td>
<td>1 Unit</td>
<td>18 hours lecture&lt;br&gt;Consumes connections between the individual and the campus. Focuses on the benefits of campus involvement in order to create student identity. Identifies connections between themes and topics of courses within a learning community. Explores problem based learning. Concurrent enrollment in a learning community is required. Field trips may be required.</td>
</tr>
<tr>
<td>LCOM 100</td>
<td>Learning Communities: Interdisciplinary Connection</td>
<td>1 Unit</td>
<td>18 hours lecture&lt;br&gt;Interprets the connections between real world problems, course content, and learning community themes. Synthesizes interdisciplinary connections utilizing problem-based learning within a learning community. Evaluates successful team selection based on specific criteria including leadership skills and interpersonal relationships to establish collective efficacy. Concurrent enrollment in a learning community is required. Field trips may be required.</td>
</tr>
<tr>
<td>LIBR 1</td>
<td>Information Resources and Research Methods</td>
<td>3 Units</td>
<td>54 hours lecture&lt;br&gt;Advisory: Eligibility for ENGL 68&lt;br&gt;Research methods for academic research and critical thinking that support information competency. Includes finding, evaluating, and documenting information using traditional and electronic resources.</td>
</tr>
<tr>
<td>LIBR 1A</td>
<td>Introduction to Library Research</td>
<td>1 Unit</td>
<td>18 hours lecture&lt;br&gt;Advisory: Eligibility for ENGL 68&lt;br&gt;Research strategies for academic research and critical thinking. Topics include search strategies, citation of sources, and use and evaluation of library resources.</td>
</tr>
</tbody>
</table>

### MANUFACTURING TECHNOLOGY

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Units</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>MFG 10</td>
<td>Mathematics and Blueprint Reading</td>
<td>3 Units</td>
<td>Degree Applicable&lt;br&gt;54 hours lecture&lt;br&gt;Applications of mathematical principles, including fractions, decimals, ratio/proportion, geometry and trigonometry to manufacturing problems and their solutions. Reading and interpreting part drawings, assembly drawings and sketches used in the manufacturing industry.</td>
</tr>
<tr>
<td>MFG 11</td>
<td>Manufacturing Processes</td>
<td>2 Units</td>
<td>Degree Applicable, CSU&lt;br&gt;18 hours lecture&lt;br&gt;54 hours lab&lt;br&gt;Advisory: MFG 10&lt;br&gt;Manual and computerized manufacturing, tool nomenclature, and lathe and mills operations, computer numerical control (CNC) machinery, applications, and tooling.</td>
</tr>
<tr>
<td>MFG 12</td>
<td>Manufacturing Processes II</td>
<td>2 Units</td>
<td>Degree Applicable, CSU&lt;br&gt;18 hours lecture&lt;br&gt;54 hours lab&lt;br&gt;Advisory: MFG 11&lt;br&gt;Machine tool manufacturing process theory and practice in milling operations, tooling set up, indexing, metallurgy, heat treatment, precision grinding, and basic tool design with study and application of manufacturing process to computerized equipment.</td>
</tr>
<tr>
<td>MFG 38</td>
<td>MasterCAM I</td>
<td>2 Units</td>
<td>Degree Applicable, CSU&lt;br&gt;18 hours lecture&lt;br&gt;54 hours lab&lt;br&gt;Advisory: MFG 12&lt;br&gt;Use MasterCAM software to create wire-frame part geometry, add tool paths and create CNC code for CNC mills and CNC lathes.</td>
</tr>
<tr>
<td>MFG 38B</td>
<td>MasterCAM II</td>
<td>2 Units</td>
<td>Degree Applicable, CSU&lt;br&gt;18 hours lecture&lt;br&gt;54 hours lab&lt;br&gt;Advisory: MFG 38&lt;br&gt;Use MasterCAM software to create three-dimensional wire-frame and solid part geometry.</td>
</tr>
<tr>
<td>MFG 85</td>
<td>Manual Computerized Numerical Control</td>
<td>2 Units</td>
<td>Degree Applicable, CSU&lt;br&gt;18 hours lecture&lt;br&gt;54 hours lab&lt;br&gt;Theory and practice in manually developing CNC programs. Methods of transmitting data to CNC machines and physical set-up and operation of CNC equipment.</td>
</tr>
</tbody>
</table>

### MATHEMATICS

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Units</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 50</td>
<td>Pre-Algebra</td>
<td>3 Units</td>
<td>Degree Applicable&lt;br&gt;54 hours lecture&lt;br&gt;Prerequisite: LERN 49 or qualifying score on current department placement test&lt;br&gt;Fundamental principles of mathematics designed to ease the transition from arithmetic to algebra. Concepts, computational skills, thinking skills and problem-solving skills are balanced to build proficiency and mastery.</td>
</tr>
<tr>
<td>MATH 51</td>
<td>Elementary Algebra</td>
<td>4 Units</td>
<td>Degree Applicable&lt;br&gt;72 hours lecture&lt;br&gt;Prerequisite: MATH 50 or qualifying score on current department placement test&lt;br&gt;Basic algebra, equivalent to first year high school algebra. Includes operations with signed numbers and algebraic expressions; linear, quadratic, rational, and radical equations; linear inequalities of one and two variables; slope/graphing/equations of lines; introduction to functions; systems of linear equations; exponent rules; polynomial operations; scientific notation; factoring; rational expressions; variation; radicals; fractional exponents; formulas; applications.</td>
</tr>
<tr>
<td>MATH 51A</td>
<td>Elementary Algebra - First Half</td>
<td>3 Units</td>
<td>Degree Applicable&lt;br&gt;54 hours lecture&lt;br&gt;Prerequisite: MATH 50 or qualifying score on current department placement test&lt;br&gt;Contains the first half of Elementary algebra. Operations with signed numbers and algebraic expressions; linear equations and inequalities; exponent rules; polynomial operations; scientific notation; factoring; solving quadratic equations by factoring; rational expressions and equations; formulas; variation; applications.</td>
</tr>
<tr>
<td>MATH 51B</td>
<td>Elementary Algebra - Second Half</td>
<td>3 Units</td>
<td>Degree Applicable&lt;br&gt;54 hours lecture&lt;br&gt;Prerequisite: MATH 51A&lt;br&gt;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).</td>
</tr>
</tbody>
</table>
Course Descriptions

- **MATH 55 — Statway I**
  - 5 Units
  - Not Degree Applicable
  - 90 hours lecture
  - Prerequisite: MATH 50 or qualifying score on current department placement test.
  - The Statway path is a two-semester sequence recommended for majors that require no mathematics beyond freshman-level statistics. MATH 55 is the first semester of two in the Statway sequence. MATH 55 includes topics from descriptive statistics (experimental design and descriptive statistics), and beginning algebra (linear and quadratic algebraic phenomena), and is a prerequisite for MATH 115, the second course in the Statway sequence. Both courses in the sequence, MATH 55 and 115, must be taken to receive credit for college level statistics.

- **MATH 61 — Plane Geometry**
  - 3 Units
  - Degree Applicable
  - 54 hours lecture
  - Prerequisite: MATH 51 or MATH 51B or 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 70S — Integrated Intermediate Algebra**
  - 5 Units
  - Degree Applicable
  - 90 hours lecture
  - Prerequisite: MATH 50 or qualifying score on current department placement test.
  - MATH 70S and 110S form a two-semester sequence that leads students through college level statistics. Simplification, solving of equations, graphing, and applications are covered. Each is applied to the following mathematical functions: polynomial, rational, radical, exponential and logarithmic. Rates and proportions, linear systems of equations, inequalities, sequence, series, design of experiments, one- and two-variable descriptive statistics are also covered.

- **MATH 71 — Intermediate Algebra**
  - 5 Units
  - Degree Applicable
  - 90 hours lecture
  - Prerequisite: MATH 51 or MATH 51B or qualifying score on current department placement test.
  - 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.

- **MATH 71A — Intermediate Algebra - First Half**
  - 3 Units
  - Not Degree Applicable
  - 54 hours lecture
  - Prerequisite: MATH 50 or MATH 51B or qualifying score on current department placement test.
  - Algebra of functions, polynomials, and rational expressions; functions and their graphs; systems of equations with two or three variables; absolute value and compound inequalities. Covers approximately half of the MATH 71 topics. A student must complete both MATH 71A and 71B to have taken the equivalent of MATH 71, Intermediate Algebra.

- **MATH 71B — Intermediate Algebra - Second Half**
  - 3 Units
  - Degree Applicable
  - 54 hours lecture
  - Prerequisite: MATH 71A.
  - Quadratic equations and graphs; exponents, radicals and logarithms; conic sections. Covers remaining MATH 71 topics at a slower pace. A student must complete both MATH 71A AND MATH 71B to have taken the equivalent of MATH 71, Intermediate Algebra.

- **MATH 71X — Practical Intermediate Algebra**
  - 5 Units
  - Degree Applicable
  - 90 hours lecture
  - Prerequisite: MATH 50 or MATH 51B or MATH 55 or qualifying score on current department placement test.
  - Intermediate Algebra for the non-calculus path. Recommended for Humanities, Social Sciences, and Applied Sciences. Recommended prerequisite for MATH 100, MATH 110, and MATH 120. Polynomial, rational, radical, exponential and logarithmic expressions are simplified, equations solved, and real-world phenomena are modeled using least-squares methods, functions graphed and analyzed; linear and nonlinear systems of equations and inequalities; sequences, series, and probabilities; data gathering instruments are used to sample data for curve fitting.

- **MATH 79 — Special Projects in Mathematics**
  - 2 Units
  - Degree Applicable, CSU, UC
  - 36 hours lecture
  - In order to offer selected students recognition for their academic interests and ability and the opportunity to explore their disciplines to greater depth, the math department from time to time offers 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. Instructor authorization needed prior to enrollment.

- **MATH 100 — Survey of College Mathematics**
  - 3 Units
  - Degree Applicable, CSU, UC
  - 54 hours lecture
  - Prerequisite: MATH 71 or MATH 71X or MATH 71B or qualifying score on current department placement test.
  - 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**
  - 3 Units
  - Degree Applicable, CSU, UC
  - 54 hours lecture
  - Prerequisite: MATH 71 or MATH 71X or MATH 71B or qualifying score on current department placement test.
  - Descriptive and inferential statistics and probability with emphasis on understanding statistical methods. Descriptive analysis of sample statistics, distribution of discrete and continuous random variables, estimation theory, tests of hypotheses, regression, correlation and analysis of variance.

- **MATH 110H — Elementary Statistics - Honors**
  - 3 Units
  - Degree Applicable, CSU, UC
  - 54 hours lecture
  - Prerequisite: MATH 71 or MATH 71X or MATH 71B or qualifying score on current department placement test.
  - Descriptive and inferential statistics and probability with emphasis on understanding statistical methods. Descriptive analysis of sample statistics, distribution of discrete and continuous random variables, estimation theory, tests of hypotheses, regression, correlation and analysis of variance. An honors course designed to provide an enriched experience. May not receive credit for MATH 110 and MATH 110H.
### Course Descriptions

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Units</th>
<th>Degree Applicable, CSU, UC</th>
<th>Hours Lecture</th>
<th>Prerequisites</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 110S</td>
<td>Integrated Statistics</td>
<td>5</td>
<td>Degree Applicable, CSU</td>
<td>90</td>
<td>Prerequisite: MATH 70S</td>
</tr>
<tr>
<td>MATH 115</td>
<td>Statway II</td>
<td>5</td>
<td>Degree Applicable, CSU</td>
<td>54</td>
<td>Prerequisite: MATH 55</td>
</tr>
<tr>
<td>MATH 120</td>
<td>Finite Mathematics</td>
<td>3</td>
<td>Degree Applicable, CSU, UC</td>
<td>54</td>
<td>Prerequisite: MATH 71 or MATH 71B or qualifying score on current department placement test</td>
</tr>
<tr>
<td>MATH 130</td>
<td>College Algebra</td>
<td>4</td>
<td>Degree Applicable, CSU, UC</td>
<td>72</td>
<td>Prerequisite: MATH 71 or MATH 71B or qualifying score on current department placement test</td>
</tr>
<tr>
<td>MATH 140</td>
<td>Calculus for Business</td>
<td>4</td>
<td>Degree Applicable, CSU, UC</td>
<td>72</td>
<td>Prerequisite: MATH 130 or MATH 160 or qualifying score on current department placement test</td>
</tr>
<tr>
<td>MATH 150</td>
<td>Trigonometry</td>
<td>3</td>
<td>Degree Applicable, CSU</td>
<td>54</td>
<td>Prerequisite: MATH 71 or MATH 71B or qualifying score on current department placement test AND MATH 61 or passing score on current geometry competency test</td>
</tr>
<tr>
<td>MATH 160</td>
<td>Precalculus Mathematics</td>
<td>4</td>
<td>Degree Applicable, CSU, UC</td>
<td>72</td>
<td>Prerequisite: MATH 150 or qualifying score on current department placement test</td>
</tr>
<tr>
<td>MATH 168</td>
<td>Calculus and Analytic Geometry</td>
<td>4</td>
<td>Degree Applicable, CSU, UC</td>
<td>72</td>
<td>Prerequisite: MATH 160 or qualifying score on current department placement test</td>
</tr>
<tr>
<td>MATH 181</td>
<td>Calculus and Analytic Geometry</td>
<td>5</td>
<td>Degree Applicable, CSU, UC</td>
<td>90</td>
<td>Prerequisite: MATH 180</td>
</tr>
<tr>
<td>MATH 245</td>
<td>A Transition to Advanced Mathematics</td>
<td>3</td>
<td>Degree Applicable, CSU, UC</td>
<td>54</td>
<td>Prerequisite: MATH 181</td>
</tr>
<tr>
<td>MATH 280</td>
<td>Linear Algebra and Differential Equations</td>
<td>5</td>
<td>Degree Applicable, CSU, UC</td>
<td>90</td>
<td>Prerequisite: MATH 280</td>
</tr>
</tbody>
</table>

### Notes
- MATH 110S is an elementary course in descriptive and inferential statistics. Observational and experimental studies, design of experiments, descriptive statistics, probability, discrete and continuous probability distributions, estimates, and hypothesis tests. For categorical data, inferences include one or two sample proportions, one- and two-way tables (chi-square goodness of fit). For quantitative data, inferences for one or two sample means, one-way ANOVA. Inferences in linear correlation and regression are included.
- MATH 150 — Trigonometry

54 hours lecture
Prerequisite: MATH 71 or MATH 71B or qualifying score on current department placement test
Trigonometric 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.

72 hours lecture
Prerequisite: MATH 71 or MATH 71B or qualifying score on current department placement test AND MATH 61 or passing score on current geometry competency test.
Trigonometric 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.

54 hours lecture
Prerequisite: MATH 130 or MATH 160 or qualifying score on current department placement test

90 hours lecture
Prerequisite: MATH 130 or MATH 160 or qualifying score on current department placement test
Differential and integral calculus with applications. Functions, derivatives, curve sketching, optimization, rules for differentiation of algebraic, exponential, logarithmic, and trigonometric functions with their inverses, with applications. Indefinite and definite integrals.

90 hours lecture
Prerequisite: MATH 180
Differential integral calculus with infinite series and applications. Includes applications of integration, techniques of integration, numerical integration, indeterminate forms and improper integrals, differential equations, conic sections, and polar coordinates.

54 hours lecture
Medical terminology used in various allied health fields.
**MENTAL HEALTH/PSYCHIATRIC TECHNICIAN**

**MENT 40 — Introduction to Interviewing and Counseling** 3 Units  
Degree Applicable

54 hours lecture  
Theory and practice in interviewing skills. Stresses application of counseling theories, helping skills, and consultation theories to allow exploration of self as a helper and learn facilitating skills to bring about change. Emphasis on establishing rapport, obtaining information and developing a supportive relationship in a variety of mental health settings. Students may not receive credit for both MENT 40 and PSYC 40.

**MENT 56 — Medical-Surgical Nursing for Psychiatric Technicians** 9 Units  
Degree Applicable

162 hours lecture  
Prerequisite: Admission to the Psychiatric Technician Program  
Corequisite: MENT 56L  
Holistic approach to assessment and intervention in the care of the medical-surgical patient. Examines physiological modes of rest and exercise, regulation, circulation, ventilation and the sensory system; medical-surgical nursing; care of the dying patient, cardiovascular problems; calculations of drug dosage and administration of oral and topical medications; study of anatomy and physiology of the human body.

**MENT 56L — Medical-Surgical Clinical Experience** 4 Units  
Degree Applicable

(May be taken for Pass/No Pass only)  
216 hours lab  
Corequisite: MENT 56  
Development of medical-surgical nursing skills. Application and assessment, intervention, evaluation of nursing treatment in the physiological modes of rest and exercise, regulation, nutrition, elimination, application of emergency procedures, circulation, ventilation, fluids, and electrolytes. Psychosocial aspects of care including interdependence, role function, self concept, care of aged, and cultural aspects. Application of nursing skills for those with medical-surgical problems and special needs. Calculation and administration of medications. Roy’s Adaptation Model serves as the conceptual framework.

**MENT 58D — Advanced Medical-Surgical Nursing and Pharmacology for PT** 4 Units  
Degree Applicable

72 hours lecture  
Prerequisite: MENT 56, MENT 56L  
Corequisite: MENT 58L  
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  
Degree Applicable

(May be taken for Pass/No Pass only)  
90 hours lab  
Prerequisite: MENT 56 and MENT 56L  
Corequisite: MENT 58D  
Application of nursing skills to patients with medical and surgical disorders. Administration of medications.

**MENT 70 — Introduction to Psychiatric Technology** 1.5 Units  
Degree Applicable

27 hours lecture  
Prerequisite: Admission to Psychiatric Technician Program  
Corequisite: MENT 70L  
Role and function of the Psychiatric Technician. Includes mental health theories of personality development, self-concept, role function, and interdependence. Also includes developmental disabilities theories of sensorimotor techniques and behavior modification techniques.

**MENT 70L — Introduction to Psychiatric Technology Clinical** 2 Units  
Degree Applicable

(May be taken for Pass/No Pass only)  
108 hours lab  
Corequisite: MENT 70  
Clinical experience at mental health facilities within the community which serve people with mental health and intellectual, physical and other developmental disabilities.

**MENT 72 — Nursing Care of the Developmentally Disabled Person** 7 Units  
Degree Applicable

126 hours lecture  
Prerequisite: MENT 56, MENT 56L, MENT 70, MENT 70L  
Corequisite: MENT 72L  
Etiology of developmental disabilities; develops the knowledge, skills, and attitudes necessary to safely teach individuals diagnosed with intellectual and developmental disabilities. Techniques of behavior modification, positive behavior support and sensorimotor 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** 5.5 Units  
Degree Applicable

(May be taken for Pass/No Pass only)  
287 hours lab  
Corequisite: MENT 72  
Application of skills needed to teach, train, and provide care for the individuals with intellectual/physical and other developmental disabilities.

**MENT 73L — Psychiatric Nursing for Psychiatric Technicians Clinical** 5.5 Units  
Degree Applicable

(May be taken for Pass/No Pass only)  
287 hours lab  
Prerequisite: Admission to Psychiatric Technician Program. MENT 56 and MENT 56L  
Corequisite: MENT 73T  
Clinical instruction in the treatment of mental disabilities and substance abuse.

**MENT 73T — Psychiatric Nursing for Psychiatric Technicians** 6 Units  
Degree Applicable

108 hours lecture  
Prerequisite: MENT 56 and MENT 56L  
Corequisite: MENT 73L and PSYC 1A  
Advisory: MENT 40  
Theoretical instruction in the assessment and treatment of the mentally disabled, use of common medication, therapeutic communication, assertive language and leadership skills appropriate for the practicing Psychiatric Technician.

**MENT 82 — Work Experience in Mental Health Technology** 2 Units  
Degree Applicable

(May be taken for Pass/No Pass only)  
150 hours lab  
Prerequisite: Compliance with Work Experience regulations as designated in the College Catalog. MENT 72, and MENT 73T  
Provides students with on-the-job experience in the field of mental health, nursing skills and/or developmental disability, related to classroom instruction, at an approved work site. A minimum of 60 unpaid or 75 paid hours of supervised work is required for each unit of credit. Students who repeat this course will improve skills through further experience.

**METO 3 — Weather and the Atmospheric Environment** 3 Units  
Degree Applicable, CSU, UC

54 hours lecture  
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.
COURSE DESCRIPTIONS

**MICR 1 — Principles of Microbiology**  
5 Units  
Degree Applicable, CSU, UC  
54 hours lecture  
108 hours lab  
Prerequisite: CHEM 10 or CHEM 40. One year of college chemistry is recommended for all transfer majors. CHEM 50/51 sequence is preferred for biology and most pre-health professional majors.  
Fundamental concepts of microbiology with emphasis on bacteria. Survey of microbial classification, morphology, physiology and genetics; beneficial and pathological aspects; growth and control of microbes; virology, immunology, and host-microbe interactions. Important infectious diseases of humans are surveyed. Laboratory exercises examine microbial morphology, physiology and genetics, as well as environmental influences of microorganisms. Laboratory techniques include culturing, examining, and identifying microorganisms. Field trips are required.

**MICR 22 — Microbiology**  
4 Units  
Degree Applicable, CSU, UC  
54 hours lecture  
54 hours lab  
Prerequisite: CHEM 10 or CHEM 40  
Advisory: BIOL 1, BIOL 4 or BIOL 4H  
Fundamental concepts of microbiology including viruses, bacteria, fungi, protozoa and parasitic worms.

**MICR 26 — Introduction to Immunology**  
3 Units  
Degree Applicable  
54 hours lecture  
Prerequisite: MICRO 1 or MICRO 22  
Advisory: BIOL 1, BIOL 4 or BIOL 4H  
Immunology including principles of innate and adaptive immunity, B and T lymphocyte structure, function, and development, the major histocompatibility complex, immune system errors, and applications and techniques in the immunology field as they pertain to medical diagnostics, immunohistochemistry, and biotechnology.

**MUS 2 — Music Theory**  
3 Units  
Degree Applicable, CSU, UC  
54 hours lecture  
Prerequisite: MUS 2  
Corequisite: MUS 5B  
Preparation for the study of harmony and form as it is practiced in Western tonal music. Topics include scales, intervals, chords, cadences, counterpoint and Roman numeral analysis. Ability to read music notation is advised. Required for music majors.

**MUS 3A — Harmony - Diatonic**  
3 Units  
Degree Applicable, CSU, UC  
54 hours lecture  
Prerequisite: MUS 2  
Corequisite: MUS 5B  
An examination of harmony and form as it is practiced in Western tonal music. This course covers diatonic harmony, from its syntax to its contrapuntal conventions, with musical examples drawn primarily from Renaissance ground basses, American folksong and the chorales of Bach.

**MUS 3B — Harmony - Chromatic I**  
3 Units  
Degree Applicable, CSU, UC  
54 hours lecture  
Prerequisite: MUS 3A  
Corequisite: MUS 6A  
Harmony and form as it is practiced in Western tonal music. This course focuses on secondary chromaticism and modulation.

**MUS 3C — Harmony - Chromatic II**  
3 Units  
Degree Applicable, CSU, UC  
54 hours lecture  
Prerequisite: MUS 3B  
Corequisite: MUS 6B  
Examination of harmony and form as it is practiced in Western tonal music with a focus on advanced chromatic harmony. The course concludes with a study of sonata form as practiced by Haydn, Mozart and Beethoven.

**MUS 5A — Musicianship - Ear Training and Sight Singing**  
1 Unit  
Degree Applicable, CSU, UC  
54 hours lab  
Corequisite: MUS 2  
Training in diatonic sight singing, rhythm reading, aural recognition and the dictation of rhythm and diatonic melody. Ability to read music and match pitch is advised. Required for music majors.

**MUS 5B — Musicianship - Diatonic**  
1 Unit  
Degree Applicable, CSU, UC  
54 hours lab  
Prerequisite: MUS 5A  
Corequisite: MUS 3A  
Training in sight singing, rhythm reading, aural recognition and the dictation of rhythm, melody and harmony. This course covers diatonic music.

**MUS 6A — Musicianship - Chromatic I**  
1 Unit  
Degree Applicable, CSU, UC  
54 hours lab  
Prerequisite: MUS 5B  
Corequisite: MUS 3B  
Sight singing and dictation of music with chromatic embellishments, secondary functions and modulations to closely-related keys.

**MUS 6B — Musicianship - Chromatic II**  
1 Unit  
Degree Applicable, CSU, UC  
54 hours lab  
Prerequisite: MUS 6A  
Corequisite: MUS 3C  
Sight singing and dictation of music with borrowed chords, linear chromaticism and modulation to foreign keys.

**MUS 7 — Fundamentals of Music**  
3 Units  
Degree Applicable, CSU  
54 hours lecture  
Music notation and the elements of music for non-music majors. Topics include pitch, rhythm, key, intervals and chords.

**MUS 9 — Introduction to Music Technology**  
3 Units  
Degree Applicable, CSU  
(May be taken for option of letter grade or Pass/No Pass)  
36 hours lecture  
54 hours lab  
Advisory: Eligibility for ENGL 68  
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.
Course Descriptions

MUS 10A — Keyboard Skills 1 Unit
54 hours lab
Advisory: Ability to read music notation
Keyboard (piano) skills required for music majors with an emphasis on practical skills applicable to professional positions in music education. Exercises include harmonization of melodies, transposition, sight-reading, and theory as applied to the keyboard. Emphasizes proficiency with scales, broken triads and seventh chords of major and minor keys, using hands separately and together, up to two octaves.

MUS 10B — Keyboard Skills 1 Unit
54 hours lab
Prerequisite: MUS 10A or admission by audition
Keyboard (piano) skills required for music majors, including harmonization of melodies, transposition, sight-reading, and theory. Emphasizes proficiency with scales as well as arpeggios of triads and seventh chord of both major and minor keys up to two octaves; harmonization of melodies with tonic, subdominant, and dominant triads and seventh chords; transposition of simple melodies by a minor and major second, higher and lower; and realization of diatonic figured bass with first and second inversions.

MUS 11A — Music Literature Survey 3 Units
54 hours lecture
Western music from the 15th through the 18th century, including examples of non-western cultures, for music majors. Lectures are augmented by sound recordings. Attending a live concert may be required.

MUS 11B — Music Literature Survey 3 Units
54 hours lecture
Western music from the 18th to the early 21st century including examples from several non-western cultures that have influenced the music of those style periods. Lectures are augmented by recordings and other support media pertinent to the cultures and periods being studied. Attending at least one live concert is required.

MUS 12 — History of Jazz 3 Units
(May be taken for option of letter grade or Pass/No Pass)
54 hours lecture
Advisory: Eligibility for ENGL 68
A survey of jazz as a significant American art form from its roots in African music to the present. Major styles, leading performers, significant compositions and recordings, and the social, economic, and cultural contexts of the music will be stressed.

MUS 13 — Introduction to Music Appreciation 3 Units
(C-ID MUS 100) Degree Applicable, CSU, UC
54 hours lecture
Western music from the Medieval period through the 21st century, including music from a variety of cultures. Lectures are augmented by recordings and other support media pertinent to the culture and period being studied. Attending at least one live concert is required.

MUS 13H — Introduction to Music Appreciation - Honors 3 Units
(C-ID MUS 100) Degree Applicable, CSU, UC
54 hours lecture
Prerequisite: Acceptance into the Honors Program
Western music from the Medieval period through the 21st century, including music from a variety of cultures. Lectures are augmented by recordings and other support media pertinent to the culture and period being studied. Attending at least one live concert is required.

MUS 14A — World Music 3 Units
Degree Applicable, CSU, UC
54 hours lecture
Advisory: Eligibility for ENGL 68
Examines the dominant musical cultures of the world within Africa, the Americas, Europe, and Asia and compares these to Western popular music. Identifies vocal and instrumental genres within selected cultures and examines the harmonic, melodic, and rhythmic characteristics of each style. Lectures, films, recordings, and media presentations will assist the student in exploring the ways in which music is used around the world for aesthetic, social, and spiritual purposes.

MUS 14B — American Folk Music 3 Units
Degree Applicable, CSU, UC
54 hours lecture
The study of American folk music by both region and period. Instruction will include lecture, reading, and listening assignments, and various audio-visual materials. No previous musical experience required.

MUS 15 — Rock Music History and Appreciation 3 Units
Degree Applicable, CSU, UC
(May be taken for option of letter grade or Pass/No Pass)
54 hours lecture
Historical survey of rock music from its beginnings in the early 50's to the present. Rhythm and blues, rockabilly, the British Invasion, Motown, soul, folk rock, hard rock, punk, metal, and various alternative rock styles will be discussed. Personalities and musical styles will be related to the sociology of the time period being studied.

MUS 16 — Individual Instruction 5 Units
Degree Applicable, CSU, UC
(May be taken four times for credit)
32 hours lab
Prerequisite: Admission by audition
Applied music for students also enrolled in a major performing group. Instruction includes a private one-half hour lesson per week. Individual problems of performance techniques, interpretation, and repertoire are included. Students who repeat this course will improve skills through further instruction and practice.

MUS 17A — Elementary Piano 1 Unit
Degree Applicable, CSU, UC
54 hours lab
Reading and performance of piano literature with emphasis on scales, chord progressions, and sight reading. Students who repeat this course will improve skills through further instruction and practice.

MUS 17B — Intermediate Piano 1 Unit
Degree Applicable, CSU, UC
54 hours lab
Advisory: MUS 17A
Reading and performances of piano literature with emphasis on major and minor scales in multiple octaves utilizing multiple textures. Includes use of damper pedal.

MUS 18 — Advanced Piano 1 Unit
Degree Applicable, CSU, UC
54 hours lab
Advisory: MUS 17B
Style, technique and interpretation of piano music from the 17th century to the present is studied collectively and individually. Sight reading, improvisation and ensemble playing will be emphasized. Recommended for music majors.

MUS 20A — Elementary Voice 1 Unit
Degree Applicable, CSU, UC
54 hours lab
Group singing instruction with an emphasis on breathing and posture and their importance in the singing of the musical line, performance techniques, and vocal quality. English and American songs are studied and performed. Open to non-music majors and recommended for all music majors.

MUS 20B — Intermediate Voice 1 Unit
Degree Applicable, CSU, UC
54 hours lab
Advisory: MUS 20A
Group and individual instruction concentrating on individual vocal development and emphasizing singing techniques required for singing popular, theatrical, and classical music. Includes singing in foreign languages.
MUS 21 — Advanced Voice  1 Unit
Degree Applicable, CSU, UC
54 hours lab
Advisory: MUS 20B
Group and individual study of the style, techniques, and interpretation of art songs and songs from operas and musicals. Emphasis will be placed on diction and pronunciation of Italian, German, and French.

MUS 22 — Conducting  1.5 Units
Degree Applicable, CSU
18 hours lecture
18 hours lab
Beat patterns, score reading, and rehearsal techniques for conducting. Includes techniques needed for group direction and leadership.

MUS 23A — Elementary Guitar  1 Unit
Degree Applicable, CSU, UC
54 hours lab
Acoustic guitar playing, note reading, strumming, finger picking and improvisation. Students must furnish their own guitars.

MUS 23B — Intermediate Guitar  1 Unit
Degree Applicable, CSU, UC
54 hours lab
Advisory: MUS 23A
Techniques for reading and playing music arranged for the solo guitar. Students must furnish their own acoustic guitar.

MUS 24 — Advanced Guitar  1 Unit
Degree Applicable, CSU, UC
48 hours lab
Advisory: MUS 23B
Style, technique, and interpretation of guitar music of the 18th and 19th centuries. Includes sight reading and ensemble playing. Students must furnish their own acoustic guitars.

MUS 25A — Jazz Improvisation  1 Unit
Degree Applicable, CSU, UC
(May be taken for option of letter grade or Pass/No Pass)
48 hours lab
Styles and techniques of jazz improvisation. Students must furnish their own musical instruments to play for and with the class.

MUS 25B — Jazz Improvisation  1 Unit
Degree Applicable, CSU, UC
(May be taken four times for credit)
(May be taken for option of letter grade or Pass/No Pass)
54 hours lab
Advisory: MUS 25A
Advanced techniques of jazz improvisation. Includes minor, dominant, and pentatonic scales along with arpeggios of polyphonic, altered chords, chord progressions, and 32-bar jazz standards. Students must furnish their instruments and be able to perform individually and with the class.

MUS 26 — Conducting  1.5 Units
Degree Applicable, CSU
18 hours lecture
18 hours lab
Beat patterns, score reading, and rehearsal techniques for conducting. Includes techniques needed for group direction and leadership.

MUS 27 — Chamber Music  1.5 Units
(C-ID MUS 180)  Degree Applicable, CSU, UC
(May be taken four times for credit)
72 hours lab
Prerequisite: Admission by audition
Select ensemble of winds, strings, guitar, and percussion instrumentists specializing in the performance of chamber music from the medieval period to the present. The course may include brass quintets, woodwind quintets, saxophone quartets, and mixed instrumental ensembles of two through twenty performers. Students must have previous instrumental experience and pass an entrance audition during the first week of instruction. Public performances on campus and in the community are required. Students who repeat this course will improve skills through further instruction and practice.

MUS 28 — Choral Workshop  1 Unit
Degree Applicable, CSU, UC
(May be taken for option of letter grade or Pass/No Pass)
54 hours lab
Prerequisite: Admission by 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. Students who repeat this course will improve skills through further instruction and practice. Open to all students without an audition.

MUS 29 — Choral Workshop  .5 Unit
Degree Applicable, CSU, UC
(May be taken for option of letter grade or Pass/No Pass)
27 hours lab
Prerequisite: Admission by 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. Students who repeat this course will improve skills through further instruction and practice. Open to all students without an audition.

MUS 30 — Collegiate Chorale  1 Unit
Degree Applicable, CSU, UC
(May be taken for option of letter grade or Pass/No Pass)
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. Attendance at performances is required.

MUS 31 — Concert Choir  1.5 Units
Degree Applicable, CSU, UC
(May be taken four times for credit)
(May be taken for option of letter grade or Pass/No Pass)
72 hours lab
Prerequisite: Admission by audition
A large mixed choral ensemble in which students perform a variety of major choral works. Classical songs are rehearsed in class and performed for a public audience. Sight singing skills and proper vocal technique are emphasized. Voice placement auditions are held the first week of class. Attendance at all performances including those off-site is required. Students who repeat this course will improve skills through further instruction and practice. Auditions held first week of the semester.

MUS 32 — Women’s Vocal Ensemble  1 Unit
Degree Applicable, CSU, UC
(May be taken four times for credit)
(May be taken for option of letter grade or Pass/No Pass)
108 hours lab
Prerequisite: Admission by audition during the first week of class
Women’s vocal ensemble that studies and performs selected classical works, folk songs, spirituals, and popular compositions. Attendance is required at all public performances including off-campus locations. Students who repeat this course will improve skills through further instruction and practice. Auditions held the first week.

MUS 33 — Wind Symphony  1 Unit
Degree Applicable, CSU, UC
36 hours lab
A wind and percussion ensemble open to students with prior instrumental experience. A variety of wind band repertoire will be studied and performed, from music of the medieval period to contemporary compositions. Rehearsal time will also be devoted to instrumental and aural skills development. Opportunities to conduct, arrange and compose music, and perform as a soloist may be provided. Students who repeat this course will improve skills through further instruction and practice. Public performances on campus and in the community may be required each semester.

MUS 34 — Women’s Vocal Ensemble  2 Units
Degree Applicable, CSU, UC
(May be taken for option of letter grade or Pass/No Pass)
108 hours lab
Prerequisite: Admission by audition during the first week of class
Women’s vocal ensemble that studies and performs selected classical works, folk songs, spirituals, and popular compositions. Attendance is required at all public performances including off-campus locations. Students who repeat this course will improve skills through further instruction and practice. Auditions held the first week.

MUS 35 — Wind Symphony  1 Unit
Degree Applicable, CSU, UC
36 hours lab
A wind and percussion ensemble open to students with prior instrumental experience. A variety of wind band repertoire will be studied and performed, from music of the medieval period to contemporary compositions. Rehearsal time will also be devoted to instrumental and aural skills development. Opportunities to conduct, arrange and compose music, and perform as a soloist may be provided. Students who repeat this course will improve skills through further instruction and practice. Public performances on campus and in the community may be required each semester.

MUS 36 — Wind Symphony  1 Unit
Degree Applicable, CSU, UC
36 hours lab
A wind and percussion ensemble open to students with prior instrumental experience. A variety of wind band repertoire will be studied and performed, from music of the medieval period to contemporary compositions. Rehearsal time will also be devoted to instrumental and aural skills development. Opportunities to conduct, arrange and compose music, and perform as a soloist may be provided. Students who repeat this course will improve skills through further instruction and practice. Public performances on campus and in the community may be required each semester.

MUS 37 — Wind Symphony  1 Unit
Degree Applicable, CSU, UC
36 hours lab
A wind and percussion ensemble open to students with prior instrumental experience. A variety of wind band repertoire will be studied and performed, from music of the medieval period to contemporary compositions. Rehearsal time will also be devoted to instrumental and aural skills development. Opportunities to conduct, arrange and compose music, and perform as a soloist may be provided. Students who repeat this course will improve skills through further instruction and practice. Public performances on campus and in the community may be required each semester.

MUS 38 — Ensemble  .5 Unit
Degree Applicable, CSU, UC
(May be taken four times for credit)
(May be taken for option of letter grade or Pass/No Pass)
18 hours lab
Prerequisite: Ability to read music or admission by audition
The study and performance of music written for small ensembles. On campus performances may be required.
MUS 39 — Laboratory Band 2 Units
(May be taken four times for credit)
108 hours lab
Prerequisite: Admission by audition
Study and performance of improvisation, jazz, and pop music of all types. Open to all students with prior instrumental experience. Audition may be required.

MUS 44 — Vocal Jazz Ensemble 2 Units
(May be taken four times for credit)
108 hours lab
Prerequisite: Admission by audition
A vocal ensemble appropriate for beginning and intermediate jazz singers. This group will perform vocal jazz charts accompanied by a rhythm section, as well as a cappella. Basics of singing jazz, vocal improvisation, group singing techniques, and microphone techniques. Ensemble will perform locally and/or at vocal jazz festivals. Attendance at performances and competitions is required. Students who repeat this course will improve skills through further instruction and practice.

MUS 45 — Chamber Singers 2 Units
(C-ID MUS 180) Degree Applicable, CSU, UC
(May be taken four times for credit)
108 hours lab
Prerequisite: Admission by audition
Premier 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. Off-campus performances are required.

MUS 47 — Jazz Ensemble 2 Units
(May be taken four times for credit)
108 hours lab
Prerequisite: Admission by audition
Study and performance of jazz and big band music. Provides an opportunity to learn techniques applicable to the large jazz ensemble. Off-campus public performance required. Students who repeat this course will improve skills through further instruction and practice.

MUS 48 — Men’s Vocal Ensemble 2 Units
(May be taken four times for credit)
108 hours lab
Prerequisite: Admission by audition
Men's vocal ensemble that studies and performs selected classical works, folk songs, spirituals, and popular compositions. Attendance is required at all public performances including off-campus locations. Students who repeat this course will improve skills through further instruction and practice.

MUS 49 — Wind Ensemble 2 Units
(C-ID MUS 180) Degree Applicable, CSU, UC
(May be taken four times for credit)
108 hours lab
Prerequisite: Admission by audition
The premier classical wind and percussion ensemble at the college. Students must have previous musical training, a standard band instrument and pass an entrance audition. A variety of wind band repertoire will be studied and performed, from music of the medieval period to contemporary compositions. Public performances on campus and in the community are required each semester and a concert tour may be included. Opportunities to conduct, arrange and compose music, and perform as a soloist may be provided to capable students. Students who repeat this course will improve skills through further instruction and practice.

MUS 50 — Jazz Improvisation and Performance Choir 2 Units
(C-ID MUS 180) Degree Applicable, CSU
(May be taken four times for credit)
108 hours lab
Prerequisite: Admission by audition
A premier vocal jazz choir. This choir will perform vocal jazz arrangements and students will study the historical, theoretical and technical aspects of both instrumental and vocal jazz. Solo singing techniques and scat singing will be rehearsed and the choir will perform at least one concert each semester at MT. SAC along with attending and performing at a variety of musical venues. Work with guest artists and make CD recordings. Attendance is required at assigned public performances. Students who repeat this course will improve skills through further instruction and practice. Admission by audition. Off-campus performances are required.

MUS 99 — Special Projects in Music 1 to 2 Units
(May be taken for option of letter grade or Pass/No Pass)
54 to 108 hours lab
Offered to selected students in recognition of academic interests and abilities to give them the opportunity to explore these interests and abilities in greater depth. The content of each course and the methods of study vary from semester to semester and depend on the particular project under consideration. Students must have an instructor’s approval before enrolling in this course.

NURSING

NURS 1A — The Nursing Process I 5 Units
45 hours lecture
135 hours lab
Prerequisite: Admission to Nursing Program; ANAT 35 or equivalent and ANAT 36 or equivalent, or ANAT 10B or equivalent and ANAT 108 or equivalent, or MICR 22 or equivalent, or MICR 1 or equivalent
Corequisite: NURS 2
Principles of nursing as related to a culturally diverse population, adulthood through senescence. Theory and application of the Nursing Process. Including meaning of illness, promoting health patterns, hygiene, safety, asepsis, medication administration, elimination, communication. The Betty Neuman Model serves as the conceptual framework.

NURS 1B — The Nursing Process II 5 Units
45 hours lecture
135 hours lab
Prerequisite: NURS 1A
Corequisite: NURS 2
Principles of nursing as related to culturally diverse population, adulthood through senescence. Theory and application of the Nursing Process including wound care, legal/ethical aspects, comfort, fluid and electrolytes, spirituality, and nursing trends. The Betty Neuman Model serves as the conceptual framework.

NURS 2 — Pharmacology 2 Units
36 hours lecture
Prerequisite: Admission to Nursing Program and eligibility for MATH 51
Corequisite: NURS 1A
Ethical and legal responsibilities in the administration of medications. Application of mathematical concepts, the nursing process, and drug therapy to the administration of fluids and medications.
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**Course Descriptions**

- **NURS 3 — Medical-Surgical Nursing:** 3.5 Units
  - Degree Applicable, CSU
  - 30 hours lecture
  - 108 hours lab
  - Prerequisite: NURS 1B and NURS 2 or Advanced Placement
  - Concepts of nursing assessment and intervention with application to clients with integumentary and immunologic disorders as well as dysfunctions of sensation and locomotion. An introduction to oncology nursing is included. The Betty Neuman Model serves as the conceptual framework.

- **NURS 4 — Maternity Nursing:** 3 Units
  - Degree Applicable, CSU
  - 27 hours lecture
  - 81 hours lab
  - Prerequisite: NURS 3 or Advanced Placement
  - Concepts of nursing assessment and intervention with application to maternity and newborn clients. The Betty Neuman Model serves as the conceptual framework.

- **NURS 5 — Psychiatric Nursing:** 3 Units
  - Degree Applicable, CSU
  - 27 hours lecture
  - 81 hours lab
  - Prerequisite: NURS 7 or NURS 70 (Advanced Placement) and PSYC 1A or PSYC 1AH
  - Concepts of nursing assessment and intervention with application to clients with psychiatric disorders in a mental health setting. The Betty Neuman Model serves as the conceptual framework.

- **NURS 6 — Pediatric Nursing:** 3 Units
  - Degree Applicable, CSU
  - 27 hours lecture
  - 81 hours lab
  - Prerequisite: NURS 4 or NURS 70 (Advanced Placement) and CHLD 10 or CHLD 10H or PSYC 14
  - Concepts of nursing assessment, diagnosis, planning, implementation, and evaluation with application to pediatric clients. The Betty Neuman Model serves as the conceptual framework.

- **NURS 7 — Medical-Surgical Nursing:** 7 Units
  - Nutrition/Elimination/Surgical Asepsis
  - Degree Applicable, CSU
  - 63 hours lecture
  - 189 hours lab
  - Prerequisite: NURS 6 or Advanced Placement
  - Nursing assessment and intervention with application to clients with problems of nutrition, elimination, and the reproductive systems. Clients in pre-, intra-, and post-operative settings are included. The Betty Neuman Model serves as the conceptual framework.

- **NURS 8 — Medical-Surgical Nursing:** 5 Units
  - Circulation and Oxygenation
  - Degree Applicable, CSU
  - 45 hours lecture
  - 135 hours lab
  - Prerequisite: NURS 5 or Advanced Placement (NURS 70)
  - Corequisite: NURS 9
  - Concepts of nursing assessment and intervention with application to clients with cardiovascular and pulmonary problems. The Betty Neuman Model serves as the conceptual framework.

- **NURS 9 — Leadership in Nursing:** 1 Unit
  - Degree Applicable, CSU
  - 18 hours lecture
  - Prerequisite: NURS 5 or Advanced Placement
  - Corequisite: NURS 8
  - Cognitive and leadership skills for first level management positions. Includes exploration and analysis of current trends and issues in nursing.

- **NURS 10 — Medical-Surgical Nursing:** 4 Units
  - Integration/Regulation
  - Degree Applicable, CSU
  - 45 hours lecture
  - 81 hours lab
  - Prerequisite: NURS 8 and NURS 9, or Advanced Placement (NURS 70)
  - Concepts of nursing assessment and intervention with application to clients with neurological and endocrine disorders. The Betty Neuman Model serves as the conceptual framework.

- **NURS 11 — Preceptorship in Nursing:** 2 Units
  - Degree Applicable, CSU
  - 108 hours lab
  - Prerequisite: NURS 10 or Advanced Placement
  - Students participate as a pre-licensed Registered Nurse immediately prior to graduation. Students assume responsibility for a group of clients under direct supervision of a qualified registered nurse.

- **NURS 20 — Nursing Work Experience Program:** 1-4 Units
  - Not Degree Applicable
  - (May be taken for Pass/No Pass only)
  - 75 to 300 hours lab
  - Prerequisite: Compliance with Work Experience regulations as designated in the College Catalog. Current satisfactory status in the Nursing Program
  - On-the-job experience for nursing students in an approved work setting related to classroom, theory and clinical 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.

- **NURS 70 — Role Transition:** 3 Units
  - Degree Applicable
  - (May be taken for Pass/No Pass only)
  - 36 hours lecture
  - 54 hours lab
  - Prerequisite: Advanced Placement; PT (Psychiatric Technician) or LVN (Licensed Vocational Nurse); ANAT 35 and ANAT 36 or ANAT 10A and ANAT 10B, and MICR 22, or MICR 1, and ENGL 1A or ENGL 1AH, and PSYC 1A or PSYC 1AH, and CHLD 10 or CHLD 10H or PSYC 14.
  - For the LVN (Licensed Vocational Nurse), PT (Psychiatric Technician) or advanced placement student transitioning into the role of the RN (Registered Nurse). Theory and application of concepts of physical assessment, the relationship of homeostatic mechanisms to fluid and electrolyte balance and imbalance utilizing the Betty Neuman Model as the conceptual framework.

- **NF 1 — Introduction to Nutrition as a Career:** 1.5 Units
  - Degree Applicable, CSU
  - 27 hours lecture
  - Prerequisite: NF 10, or NF 25, or NF 25H
  - Careers in dietetics, food science, and the food industry. Includes program requirements for nutrition and dietetics majors, career opportunities, professional organizations, ethics, and future directions. Students should be considering a major in nutrition, dietetics, nutrition science, or food science upon transfer. Field trips may be required.

- **NF 10 — Nutrition for Personal Health and Wellness:** 3 Units
  - Degree Applicable, CSU
  - 54 hours lecture
  - Prerequisite: Eligibility for ENGL 68
  - Principles of nutrition and its 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-science health majors.
Course Descriptions

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Degree Applicable</th>
<th>Prerequisite(s)</th>
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<td>NF 12</td>
<td>Sports Nutrition</td>
<td>3</td>
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<td></td>
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<td>NF 20</td>
<td>Principles of Foods with Lab</td>
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<td>36 hours lecture</td>
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<td>NF 25</td>
<td>Essentials of Nutrition</td>
<td>3</td>
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<td>NF 28</td>
<td>Cultural and Ethnic Foods</td>
<td>3</td>
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<td>NF 30</td>
<td>Food Science Technologies</td>
<td>3</td>
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<td>OCEA 10</td>
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<td>OCEA 10L</td>
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<td>CSU, UC</td>
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<td>54 hours lab</td>
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</tbody>
</table>

Prerequisite: Acceptance into the Honors Program

An honors course designed to provide an enriched experience. Introduces the geological, chemical, physical, and biological aspects of the Earth’s ocean. Topics include plate tectonics, physiography of ocean basins and continental margins, ocean sediment, atmosphere and ocean circulation, waves and tides, coasts, and marine ecology. The companion Oceanography Lab (OCEA 10L) is recommended for students needing a lab to transfer to a four-year college/university. Field trips are required. Students may not receive credit for both OCEA 10 and OCEA 10H.

Laboratory applications and problem-solving in oceanography, including related aspects of geology, meteorology, and marine biology. A hands-on approach to the marine environment and oceanic processes. Recommended for students needing a lab to transfer to a 4-year college/university.
### PHIL 3 — Logic in Practice  3 Units  
54 hours lecture  
Prerequisite: Eligibility for ENGL 68  
Analysis of language as an instrument of sound thinking in morals, politics and everyday life. Assists students to analyze an argument, avoid faulty conclusions in reasoning, understand levels of meaning and kinds of arguments, avoid verbal pitfalls, understand the steps of scientific methods and identify value assumptions.  

### PHIL 9 — Critical Analysis and Writing - Honors  3 Units  
54 hours lecture  
Prerequisite: Acceptance into the Honors Program  
Function and use of formal and informal logic, argument, critical evaluation, and language in written composition. An honors course is designed to provide an enriched experience. Students may not receive credit for both PHIL 9 and PHIL 9H.  

### PHIL 10 — Logic in Practice  3 Units  
54 hours lecture  
Prerequisite: Acceptance into the Honors Program  
Analysis of language as an instrument of sound thinking in morals, politics and everyday life. Assists students to analyze an argument, avoid faulty conclusions in reasoning, understand levels of meaning and kinds of arguments, avoid verbal pitfalls, understand the steps of scientific methods and identify value assumptions. An honors course is designed to provide an enriched experience. Students may not receive credit for both PHIL 3 and PHIL 3H.  

### PHIL 15 — Major World Religions  3 Units  
54 hours lecture  
Prerequisite: Eligibility for ENGL 68  
History, doctrines, and practices 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, Judaism, Christianity, and Islam including those of East Asia, India, and the Middle East. Off-campus assignments are required.  

### PHIL 20A — History of Western Philosophy  3 Units  
54 hours lecture  
Prerequisite: Eligibility for ENGL 1A  
Major western philosophers and philosophical ideas from pre-Socratic to medieval times.  

### PHIL 20B — History of Western Philosophy  3 Units  
54 hours lecture  
Prerequisite: Eligibility for ENGL 1A  
Major western philosophy and philosophical ideas from the Renaissance to the present.  

### PHIL 20BH — History of Western Philosophy - Honors  3 Units  
54 hours lecture  
Prerequisite: Acceptance into the Honors Program  
Major western philosophy and philosophical ideas from the Renaissance to the present. An honors course designed to provide an enriched experience. Students may not receive credit for both PHIL 20B and PHIL 20BH.  

### PHIL 9H — Critical Analysis and Writing - Honors  3 Units  
54 hours lecture  
Prerequisite: Acceptance into the Honors Program  
Function and use of formal and informal logic, argument, critical evaluation, and language in written composition. An honors course is designed to provide an enriched experience. Students may not receive credit for both PHIL 9 and PHIL 9H.  

### PHIL 20AH — History of Western Philosophy - Honors  3 Units  
54 hours lecture  
Prerequisite: Acceptance into the Honors Program  
Major western philosophers and philosophical ideas from pre-Socratic to medieval times. An honors course is designed to provide an enriched experience. Students may not receive credit for both PHIL 20AH and PHIL 20A.
PHOT 1A — Laboratory Studies: Beginning Black and White Photography  1 Unit
(May be taken for Pass/No Pass only)
54 hours lab
Corequisite: PHOT 10
Extended black-and-white laboratory experiences to improve skills through further instruction and practice, as well as pursue more advanced projects and experiments.

PHOT 1B — Laboratory Studies: Advanced Black and White Photography  1 Unit
(May be taken for Pass/No Pass only)
54 hours lab
Corequisite: PHOT 11 or PHOT 12 or PHOT 17
Extended advanced black and white laboratory experiences with medium and large format cameras to improve skills and pursue more advanced photographic printing, processing, and enlarging techniques.

PHOT 1C — Laboratory Studies: Studio Photography  1 Unit
(May be taken for Pass/No Pass only)
54 hours lab
Corequisite: PHOT 9 or PHOT 19 or PHOT 24
Extended computer laboratory experiences to supplement those available in the regular program. Provides students the opportunity to improve skills through further instruction and practice, as well as pursue more advanced projects and experiments.

PHOT 1D — Laboratory Studies: Computer Applications  1 Unit
(May be taken for Pass/No Pass only)
54 hours lab
Corequisite: PHOT 9 or PHOT 19 or PHOT 24
Extended computer laboratory experiences to supplement those available in the regular program. Provides students the opportunity to improve skills through further instruction and practice, as well as pursue more advanced projects and experiments.

PHOT 9 — Digital Image Editing for Photographers  3 Units
36 hours lecture
54 hours lab
Corequisite: PHOT 10 (may have been taken previously)
Software and techniques including digital workflow practices, digital image editing, enhancing and retouching methods commonly used in photography.

PHOT 10 — Basic Digital and Film Photography  3 Units
36 hours lecture
54 hours lab
The basic mechanical, optical, and chemical principles of photography, including digital image systems. Laboratory experience involves problems related to camera and image output techniques.

PHOT 11 — Intermediate Photography  4 Units
36 hours lecture
108 hours lab
Prerequisite: PHOT 10
Current professional techniques and studio lighting. Includes studio and field assignments related to problems encountered while professionally photographing people and products. Topics include medium and large format film and digital cameras, computer basics for professional photographers and studio lighting. Students must furnish a digital single lens reflex (DSLR) camera. Field trips may be required.

PHOT 12 — Photographic Alternatives  3 Units
36 hours lecture
54 hours lab
Prerequisite: PHOT 10
Alternative photographic processes. Instant films: Lifts and transfers, specialized lighting, stain toning, emulsion coating, scanography and hand-made camera construction will be applied to produce images not considered common to making photographic prints.

PHOT 14 — Commercial Lighting  3 Units
36 hours lecture
54 hours lab
Prerequisite: PHOT 10
Use of studio equipment, and studio and location lighting techniques used in all aspects of commercial photographic applications. Students must furnish adjustable Single Lens Reflex camera.

PHOT 15 — History of Photography  3 Units
Degree Applicable
54 hours lecture
Prerequisite: Eligibility for ENGL 68
Survey of the history of photography from circa 1839 to the present. An introduction to concepts of photographic representation and their impact on society.

PHOT 16 — Fashion Photography  3 Units
Degree Applicable
36 hours lecture
54 hours lab
Prerequisite: PHOT 11
Professional illustrative, editorial and advertising fashion photography. Studio and location production in digital capture. Business aspects of operation and working with clients are presented. Off-campus assignments may be required.

PHOT 17 — Photocommunication  3 Units
Degree Applicable
36 hours lecture
54 hours lab
Prerequisite: PHOT 10
Affects that camera controls have on visual communication with photographs. Includes message enhancement using optical and digital controls, depth of field, lenses, lighting, composition, books, black and white vs. color images, and documentary and journalistic styles.

PHOT 18 — Portraiture and Wedding Photography  3 Units
Degree Applicable
36 hours lecture
54 hours lab
Prerequisite: PHOT 10
Professional studio and field techniques and procedures for informal, formal, and environmental portraits with an emphasis on wedding photography. Includes lighting, color correction, digital techniques, photographic critique, and posing for individuals, couples, families, and groups in the studio and on location. Also includes business and legal issues for wedding and portrait photography businesses. Off-campus assignment required.

PHOT 19 — Digital Color Management  3 Units
Degree Applicable
36 hours lecture
54 hours lab
Prerequisite: PHOT 10 AND (PHOT 9 OR ARTC100)
Digital color management software and hardware skills, techniques and digital workflow practices commonly used in photography.
PHOT 20 — Color Photography  3 Units
Degree Applicable
36 hours lecture
54 hours lab
Prerequisite: PHOT 10
Fundamentals of photographic color theory, editing, schemes and presentation of color photographs. Applying color psychology principles and HDR to enhance image messages.

PHOT 21 — Exploring Color Photography  3 Units
Degree Applicable
36 hours lecture
54 hours lab
Prerequisite: PHOT 20
Use of color principles as they relate to commercial and artistic styles and innovative use of color applications. Includes lighting and unusual techniques, exaggerated and unique color schemes, light-painting, lighting effects, high dynamic range effects, and oversize output.

PHOT 24 — Advanced Digital Image Editing  3 Units
Degree Applicable
36 hours lecture
54 hours lab
Prerequisite: PHOT 10 AND (PHOT 9 OR GRAP 10 OR ARTC 100)
Advanced software and techniques for digital image editing, archiving, and retouching used in commercial photography.

PHOT 25 — Digital Capture Workflow  3 Units
Degree Applicable
36 hours lecture
54 hours lab
Prerequisite: PHOT 11
Advanced application of digital capture and workflow using DSLR medium and large format digital camera systems and software to produce high-quality digital files as a photographer or as a digital photographic technician. Field trips may be required.

PHOT 28 — Photography Portfolio Development  3 Units
Degree Applicable
36 hours lecture
54 hours lab
Prerequisite: PHOT 10 and PHOT 11 and PHOT 20 and (PHOT 16 or PHOT 18)
Development of a photography portfolio and marketing materials for use in job application or gallery exhibition purposes. Field trips may be required.

PHOT 29 — Studio Business Practices for Commercial Artists  3 Units
Degree Applicable
54 hours lecture
54 hours lab
Prerequisite: PHOT 11 AND PHOT 20
Advisory: PHOT 14
Overview of the commercial photographic industry. Exploration of the various commercial photography specialties including studio product and people photography, lifestyle, fashion and industrial/location photography with an emphasis on the development of a personal creative style. Field trips may be required.

PHOT 98 — Work Experience in Photography  1 to 3 Units
Degree Applicable
(May be taken for Pass/No Pass only)
75 to 225 hours lab
Prerequisite: Compliance with Work Experience regulations as designated in the College Catalog
Provides students with on-the-job experience in professional photography and related areas in an approved worksite to strengthen and broaden skills in the workplace. A minimum of 80 non-paid clock hours per semester is required for each unit of credit. It is recommended that the hours per week are equally distributed throughout the semester. Students who repeat this course will improve skills through further instruction and practice.

PHOT 99 — Special Projects in Photography  2 Units
Degree Applicable
36 hours lecture
Prerequisite: PHOT 10 and approval by instructor
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 ensure that proficiencies are enhanced.

PHSC 3 — Energy Science  4 Units
Degree Applicable, CSU, UC
54 hours lecture
54 hours lab
Advisory: Eligibility for MATH 51 and ENGL 68
Provides a broad technical understanding of the physical principles underlying the various forms of energy production, the role of energy in modern society, and an understanding of the wider environmental and societal impacts of different energy production technology choices. Course topics will include: fossils fuels, nuclear energy, hydro, wind, solar energy, biofuels, and energy distribution and storage. Field trips required.

PHSC 7 — Physical Science  3 Units
Degree Applicable, CSU, UC
54 hours lecture
Designed for the non-science major. A primarily non-mathematical, conceptual approach to basic principles of physics and chemistry and their practical applications. Critical thinking is stressed in such topics as motion, heat, electricity and magnetism, sound and light, radioactivity, atomic theory and modern physics. May be taken with Physical Sciences Laboratory for those students needing a laboratory science course.

PHSC 7L — Physical Science Laboratory  1 Unit
Degree Applicable, CSU, UC
54 hours lab
Corequisite: PHSC 7 (may have been taken previously)
Laboratory topics will parallel the course content of Physical Science 7 lecture.

PHYS 1 — Physics  4 Units
Degree Applicable, CSU, UC
54 hours lecture
54 hours lab
Prerequisite: Eligibility for MATH 100
Discovery of concepts of physics by working through guided activities in a workshop style. Topics include light and geometrical optics, electricity and DC circuits, magnetism, linear and rotational motion, forces, momentum, energy, harmonic motion and waves.

PHYS 2AG — General Physics  4 Units
Degree Applicable, CSU, UC
54 hours lecture
54 hours lab
Prerequisite: MATH 150
The basic principles of physics. Includes theory, applications, laboratory, and problem solving in mechanics, heat, fluids, and wave motion.
PHYS 2BG — General Physics  
4 Units  
(C-ID PHYS 110)  
Degree Applicable, CSU, UC  
54 hours lecture  
54 hours lab  
Prerequisite: PHYS 2AG or equivalent  
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  
(C-ID PHYS 205)  
Degree Applicable, CSU, UC  
72 hours lecture  
54 hours lab  
Prerequisite: PHYS 2AG  
Corequisite: MATH 181 (May have been taken previously)  
Continuation of Physics 4A. Prerequisites: PHYS 4A and 4B.

PHYS 4B — Engineering Physics  
5 Units  
(C-ID PHYS 215)  
Degree Applicable, CSU, UC  
72 hours lecture  
54 hours lab  
Prerequisite: PHYS 4A  
Corequisite: MATH 280 (May have been taken previously)  
Continuation of Physics 4B. Prerequisites: PHYS 4A and 4B.

PHYS 4C — Engineering Physics  
5 Units  
(C-ID PHYS 215)  
Degree Applicable, CSU, UC  
72 hours lecture  
54 hours lab  
Prerequisite: PHYS 4B  
Corequisite: MATH 280 (May have been taken previously)  
Continuation of Physics 4C. Prerequisites: PHYS 4A and 4B.

PHYS 99 — Special Projects in Physics  
2 Units  
Degree Applicable, 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. Students must have the instructor’s authorization before enrolling in this class. Field trips may be required as part of this course.

POLI 1 — Political Science  
3 Units  
Degree Applicable, CSU, UC  
54 hours lecture  
Prerequisite: Eligibility for ENGL 68  
Principles and problems of government with particular emphasis on national government in the United States. This course satisfies the requirement for a course in the Constitution of the United States and the principles of State and local government as required by Title 5 of the California Administrative Code.

POLI 1H — Political Science - Honors  
3 Units  
Degree Applicable, CSU, UC  
54 hours lecture  
Prerequisite: Acceptance into the Honors Program  
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 — Comparative Politics  
3 Units  
Degree Applicable, CSU, UC  
54 hours lecture  
Prerequisite: POLI 1 or POLI 1H  
Advisory: Eligibility for ENGL 1A  
Comparative analysis of different political systems, including political institutions, processes, policies, histories and the environments in which they occur.

POLI 5 — Political Theory I - Ancient to Modern  
3 Units  
Degree Applicable, CSU, UC  
54 hours lecture  
Prerequisite: POLI 1 or POLI 1H  
Advisory: Eligibility for ENGL 1A  
Ancient to modern (mid-19th century) theories of political institutions, social change and social dynamics.

POLI 7 — Political Theory II - Early Modern to Contemporary  
3 Units  
Degree Applicable, CSU, UC  
54 hours lecture  
Prerequisite: POLI 1  
Advisory: Eligibility for ENGL 1A  
Major political philosophers and theories from the late nineteenth century to the present. Intended to prepare students majoring in political science for further study in the discipline by providing adequate background preparation in political philosophy.

POLI 9 — Introduction to International Relations  
3 Units  
Degree Applicable, CSU, UC  
54 hours lecture  
Prerequisite: Eligibility for ENGL 68  
Historical and political background of world politics and core international relations theories and concepts. Attention is given to the historical development of world politics, to fundamental theories and concepts in International Relations, and to an examination of international, national, sub-national, and transnational actors and their institutions, interactions, and processes.

POLI 10 — Environmental Politics  
3 Units  
Degree Applicable, CSU, UC  
54 hours lecture  
Advisory: Eligibility for ENGL 1A AND POLI 1 OR POLI 1H  
Global environmental problems including an analysis of political theories and comparative policies in the emerging field of environmental politics.

POLI 25 — Latino Politics in the United States  
3 Units  
Degree Applicable, CSU, UC  
54 hours lecture  
Prerequisite: Eligibility for ENGL 68  
Latino (the group identified as Hispanic by the U.S. Census) political thought and action and how it is influenced and shaped by American institutions such as national, state, and local governments, federal and state constitutions, and United States Supreme Court decisions. Includes political theories and examines Latino’s response to the actions of the dominant political institutions.

POLI 30 — California State and Local Government  
3 Units  
Degree Applicable, CSU  
54 hours lecture  
Advisory: Eligibility for ENGL 68  
Surveys the forces shaping California government and analyzes the operation of governmental institutions within California and the political and fiscal challenges facing California.
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<tr>
<th>Course Description</th>
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<tr>
<td><strong>COURSE DESCRIPTIONS</strong></td>
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<td><strong>POLI 35 — African American Politics</strong></td>
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<tr>
<td>Methods and strategies employed by African Americans in their quest to gain equal access and participation in American institutions.</td>
</tr>
<tr>
<td><strong>PSYC 1A — Introduction to Psychology</strong></td>
</tr>
<tr>
<td>(C-ID PSY 110)</td>
</tr>
<tr>
<td>Degree Applicable, CSU, UC</td>
</tr>
<tr>
<td>54 hours lecture</td>
</tr>
<tr>
<td>Prerequisite: Eligibility for ENGL 1A</td>
</tr>
<tr>
<td>Advisory: Eligibility for READ 100 or completion of AMLA 33R</td>
</tr>
<tr>
<td>Psychological approaches to the study of behavior and mental processes. Topics include the history of psychology, psychological research methods, biological psychology, sensation and perception, consciousness, learning, memory, cognition, intelligence, and language, lifespan development, motivation and emotion, applied psychology (e.g., gender and sexuality and stress and health), social psychology, personality, psychological disorders, and psychological treatment.</td>
</tr>
<tr>
<td><strong>PSYC 1AH — Introduction to Psychology - Honors</strong></td>
</tr>
<tr>
<td>(C-ID PSY 110)</td>
</tr>
<tr>
<td>Degree Applicable, CSU, UC</td>
</tr>
<tr>
<td>54 hours lecture</td>
</tr>
<tr>
<td>Prerequisite: Acceptance into the Honors Program</td>
</tr>
<tr>
<td>Advisory: Eligibility for READ 100 or completion of AMLA 33R</td>
</tr>
<tr>
<td>Psychological approaches to the study of behavior and mental processes. Topics include the history of psychology, psychological research methods, biological psychology, sensation and perception, consciousness, learning, memory, cognition, intelligence, and language, lifespan development, motivation and emotion, applied psychology (e.g., gender and sexuality and stress and health), social psychology, personality, psychological disorders, and psychological treatment. An honors course designed to provide an enriched experience. Students may not receive credit for both PSYC 1A and PSYC 1AH.</td>
</tr>
<tr>
<td><strong>PSYC 1B — Biological Psychology</strong></td>
</tr>
<tr>
<td>(C-ID PSY 150)</td>
</tr>
<tr>
<td>Degree Applicable, CSU, UC</td>
</tr>
<tr>
<td>54 hours lecture</td>
</tr>
<tr>
<td>Prerequisite: PSYC 1A or PSYC 1AH</td>
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<tr>
<td>Advisory: Eligibility for ENGL 1A</td>
</tr>
<tr>
<td>Biological mechanisms of behavior. Includes 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.</td>
</tr>
<tr>
<td><strong>PSYC 1C — Developmental Psychology</strong></td>
</tr>
<tr>
<td>(C-ID PSY 180)</td>
</tr>
<tr>
<td>Degree Applicable, CSU, UC</td>
</tr>
<tr>
<td>54 hours lecture</td>
</tr>
<tr>
<td>Advisory: Eligibility for ENGL 1A</td>
</tr>
<tr>
<td>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.</td>
</tr>
<tr>
<td><strong>PSYC 1D — Introduction to Research Methods in Psychology</strong></td>
</tr>
<tr>
<td>(C-ID PSY 205B)</td>
</tr>
<tr>
<td>Degree Applicable, CSU, UC</td>
</tr>
<tr>
<td>54 hours lecture</td>
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<tr>
<td>54 hours lab</td>
</tr>
<tr>
<td>Prerequisite: PSYC 1A or PSYC 1AH and PSYC 10 or MATH 110 or MATH 110H</td>
</tr>
<tr>
<td>Advisory: ENGL 1A</td>
</tr>
<tr>
<td>Research methods in psychology. Includes systematic observation, research design, survey development, execution and analysis of experimental and other research methods, and American Psychological Association (APA) publication style writing.</td>
</tr>
<tr>
<td><strong>PSYC 15 — Introduction to Child Psychology</strong></td>
</tr>
<tr>
<td>Degree Applicable, CSU, UC</td>
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<tr>
<td>54 hours lecture</td>
</tr>
<tr>
<td>Advisory: Eligibility for ENGL 68</td>
</tr>
<tr>
<td>Examines the psychology of the child from conception through adolescence. Emphasis on physical, cognitive, and psychosocial development as it pertains to the child’s psychological experiences. Includes psychological disorders and therapies specific to children and adolescents. This course does not fulfill Title 22 requirement for child development majors.</td>
</tr>
<tr>
<td><strong>PSYC 17 — Introduction to Human Services</strong></td>
</tr>
<tr>
<td>Degree Applicable, CSU</td>
</tr>
<tr>
<td>54 hours lecture</td>
</tr>
<tr>
<td>Advisory: PSYC 1A or PSYC 1AH or SOC 1 or SOC 1H</td>
</tr>
<tr>
<td>Explores the factors involved in establishing and maintaining a psychological perspective. These components assess many facets of the critical thinking process, including perception, learning (classical and operant conditioning, behavior modification, observation, cognitive models), memory, logical fallacies, heuristics, cognitive distortions, decision-making processes, argument, and judgment. This course also contains a practical application element involving systematic introspection and analysis of one’s cognitive processes.</td>
</tr>
<tr>
<td><strong>PSYC 19 — Abnormal Psychology</strong></td>
</tr>
<tr>
<td>Degree Applicable, CSU</td>
</tr>
<tr>
<td>54 hours lecture</td>
</tr>
<tr>
<td>Prerequisite: PSYC 1A or PSYC 1AH</td>
</tr>
<tr>
<td>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.</td>
</tr>
<tr>
<td><strong>PSYC 25 — The Psychology of Women</strong></td>
</tr>
<tr>
<td>Degree Applicable, CSU, UC</td>
</tr>
<tr>
<td>54 hours lecture</td>
</tr>
<tr>
<td>Advisory: PSYC 1A (taken prior or concurrently), and ENGL 1A (taken prior or concurrently)</td>
</tr>
<tr>
<td>A biopsychosocial analysis of the role of gender in the experience of women. Psychological, sociocultural and biological factors, and current scholarly research relating to women’s gender identity, development, socialization, motivation, mental health, and relationships.</td>
</tr>
<tr>
<td><strong>PSYC 26 — Psychology of Sexuality</strong></td>
</tr>
<tr>
<td>(C-ID PSY 130)</td>
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<tr>
<td>Degree Applicable, CSU, UC</td>
</tr>
<tr>
<td>54 hours lecture</td>
</tr>
<tr>
<td>Advisory: Eligibility for ENGL 68</td>
</tr>
<tr>
<td>Prerequisite: PSYC 1A or PSYC 1AH</td>
</tr>
<tr>
<td>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.</td>
</tr>
</tbody>
</table>
### PSYC 23 — Psychology for Effective Living

3 Units  
(C-ID PSY 115)  
Degree Applicable, CSU  
54 hours lecture  
Emphasis on comprehension and application of psychological principles to interpersonal relationships, personal growth, sexual- 
ity, vocation, marriage, parenting, aging, and other circumstances 
encountered in the life cycle. Considers personality development 
and psychological disorders as well as therapeutic approaches.

### PSYC 99 — Special Projects in Psychology

1 to 3 Units  
Degree Applicable, CSU  
18 to 54 hours lecture  
Prerequisite: PSYC 1A or PSYC 1AH and Eligibility for ENGL 1A or 
ENGL 1AH  
Advisory: READ 100  
Offers selected students recognition for their academic interest 
in psychology and the opportunity to explore the discipline of 
psychology in greater depth. The content of the course and the 
methods of study vary from semester to semester and depend on 
the particular project under consideration.

### R-TV 01 — Introduction to Electronic Media

3 Units  
Degree Applicable, CSU  
54 hours lecture  
Prerequisite: Eligibility for ENGL 68  
History, structure, function, economics, content and evolution of 
radio, television, film, and the internet, including traditional and 
mature formats as well as emerging electronic media delivery 
systems. The social, political, regulatory, ethical and occupational 
impact of the electronic media will also be studied.

### R-TV 02 — On-Air Personality Development

3 Units  
Degree Applicable, CSU  
54 hours lecture  
Corequisite: R-TV 01 and R-TV 11A (May have been taken 
previously)  
Developing a broadcast voice, style and understanding of the 
business for all areas of the industry, including disc jockey, news-
caster and voice over artist. Developing content for on-air shows. 
Review the basics of the production studio and its components.

### R-TV 03 — Sportscasting and Reporting

1.5 Units  
Degree Applicable  
27 hours lecture  
Corequisite: R-TV 01 and R-TV 11A (may have been taken 
previously)  
Covers in-studio sportscasting, interviewing, field reporting 
and play-by-play for radio and television. Students will learn the 
legaleis 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 ath-
etic teams. Students who repeat this course will improve skills 
through further instruction and practice.

### R-TV 04 — Broadcast News Field Reporting

3 Units  
Degree Applicable  
54 hours lecture  
Corequisite: R-TV 01, R-TV 05, and R-TV 11A (May have been taken 
previously)  
Techniques used to research and cover a variety of news events 
including working with police and other emergency personnel, 
interviewing techniques and story developments. Emphasis will 
be placed on legal and ethical issues concerning news coverage.

### R-TV 05 — Radio-TV Newswriting

3 Units  
Degree Applicable  
54 hours lecture  
Corequisite: R-TV 01 (May have been taken previously)  
Writing, editing and reporting radio and TV news, utilizing the 
Associated Press Wire Service. Rewriting 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 on factual and concise content and the 
ability to work under deadline.

### R-TV 06 — Broadcast Traffic Reporting

1.5 Units  
Degree Applicable  
27 hours lecture  
Corequisite: R-TV 01 (May have been taken previously)  
History and development of techniques involved in radio and 
television traffic reporting through lecture and hands-on practice. 
Interpretation and reading of police codes as they relate to traffic, 
accidents, and emergency situations including broadcast rules 
and liabilities as they apply to traffic reporting. Emphasis on both 
production and delivery of anchored and airborne reports.

### R-TV 07A — Beginning Commercial Voice-Overs

3 Units  
Degree Applicable  
54 hours lecture  
Advisory: R-TV 01  
Developement of voices for radio and television commercials, char-
acter voices, narrations, and animation. Also covers auditioning, 
working with agents and agencies, and understanding voice-over 
contracts.

### R-TV 08 — Broadcast Sales and Promotion

3 Units  
Degree Applicable  
54 hours lecture  
Corequisite: R-TV 01 (May have been taken previously)  
Strategies and legalities for creating commercial campaigns for 
radio and television including demographic targeting, marketing 
strategies and copywriting. Includes creation of contests and 
consumer campaigns.

### R-TV 09 — Radio Programming and Producer Techniques

3 Units  
Degree Applicable  
54 hours lecture  
Corequisite: R-TV 01 (May have been taken previously)  
Programming, management and producing techniques for various 
radio stations formats such as music, news, talk, and sports.

### R-TV 10 — Beginning Radio Production

3 Units  
Degree Applicable, CSU  
54 hours lecture  
Prerequisite: R-TV 11A  
Operation of standard radio production equipment for both tape-
based and digital production utilizing ProTools technology. Pro-
duction skills concentrate on the use of voice, music and sound 
effects as applied to a variety of broadcasting elements.

### R-TV 11B — Advanced Radio Production

3 Units  
Degree Applicable, CSU  
54 hours lecture  
Prerequisite: R-TV 11A  
Techniques in non-linear recording, editing and mixing using Pro 
Tools technology as these skills apply to a variety of applications 
in the broadcasting industry. Develop mastery of the concepts 
and skills required to work in a professional radio studio environ-
ment.

### R-TV 12 — Internet Radio and Podcasting

3 Units  
Degree Applicable, CSU  
54 hours lecture  
Prerequisite: Eligibility for ENGL 68  
Media aesthetics for television and film presentation. Stresses 
critical, theoretical and practical analysis. Material is presented 
from a producer/artist point of view and is intended for those 
pursuing a career in film, television, and other electronic visual 
media.

### R-TV 13 — Broadcast Law and Business Practices

3 Units  
Degree Applicable, CSU  
54 hours lecture  
Corequisite: R-TV 01 (May have been taken previously)  
The broadcasting industry as a business. Legal and Federal Com-
 munications Commission (FCC) regulatory issues in broadcasting 
and developing media, as well as unions, contracts, negotiations, 
residuals, and mergers.

### R-TV 14 — Media Aesthetics

3 Units  
Degree Applicable, CSU  
54 hours lecture  
Corequisite: Eligibility for ENGL 68  
Course Descriptions
Course Descriptions

R-TV 18 — Introduction to Screenwriting  3 Units
Degree Applicable, CSU
54 hours lecture
Prerequisite: Eligibility for ENGL 1A
Screenwriting for television and motion picture production. Includes characterization, visualization, structure and form.

R-TV 19A — Beginning Video Production  3 Units
Degree Applicable, CSU
(May be taken for option of letter grade or Pass/No Pass)
36 hours lecture
54 hours lab
Advisory: R-TV 14
Video production using studio, remote multicamera, and film-style techniques. Introduction to theory and practice in lighting, audio recording for video, basic directing and producing, editing software, and production of a short narrative-form video.

R-TV 19B — Advanced Video Production  3 Units
Degree Applicable, CSU
36 hours lecture
54 hours lab
Prerequisite: R-TV 19A
Video production techniques emphasizing narrative storytelling, film-style aesthetics and production.

R-TV 20 — Television News Production  3 Units
Degree Applicable
36 hours lecture
54 hours lab
Prerequisite: R-TV 05 or R-TV 19A
TV newscast production using writing, announcing, production, equipment, direction, graphics, and editing skills both in and out of the studio.

R-TV 21 — Remote Multicamera Production  3 Units
Degree Applicable
36 hours lecture
54 hours lab
Prerequisite: R-TV 19A
Remote video production using both multi-camera and single camera techniques. Topics include video engineering, directing, and remote production truck setup.

R-TV 22 — Editing for Film and Television  3 Units
Degree Applicable, CSU
54 hours lecture
Aesthetics and use of editing software for film and television. Previous production experience recommended.

R-TV 23 — Reality Show Production  3 Units
Degree Applicable
36 hours lecture
54 hours lab
Prerequisite: R-TV 19A
Types and production of Reality Show television programs. Authoring and pitching of reality show concepts. Instruction in specific equipment skills in lighting, wireless multicamera shooting, editing and related skills. Includes production of a reality show.

R-TV 24 — American Film History  3 Units
Degree Applicable, CSU
54 hours lecture
Prerequisite: Eligibility for ENGL 1A
History of American film and filmmakers from 1895 to the present. Development and changes are examined in relation to historical, sociological, economic, political, cultural, artistic and technological contexts.

R-TV 25 — World Cinema  3 Units
Degree Applicable, CSU
54 hours lecture
Prerequisite: Eligibility for ENGL 1A
Cinema history using a global perspective, following the growth of cinema in key countries from their beginnings until the present day. Both national and multinational co-productions are explored. Provides critical methodology and practical tools for examining and interpreting international film movements and genres.

R-TV 26 — Introduction to Writing for Electronic Media  3 Units
Degree Applicable, CSU
54 hours lecture
Prerequisite: Eligibility for ENGL 68
Conceptualize, structure and write dramatic and non-dramatic scripts for cinema, television and new media.

R-TV 27 — History of Radio DJs  3 Units
Degree Applicable, CSU
54 hours lecture
Prerequisite: Eligibility for ENGL 1A
On-air performance and behind-the-scenes roles.

R-TV 28 — History of Radio DJs  1.5 Units
Degree Applicable, CSU
27 hours lecture
Corequisite: RTV 01 (May have been taken previously)
Focuses on Federal Communication Commission (FCC) rules, regulations, documentation and licensing, SoundExchange rules regarding digital performances and the Digital Media Copyright Act and its impact on Internet streaming. Following successful completion of this course, students are eligible to work at the campus stations.

R-TV 29 — Campus Radio Station Operations  1.5 Units
Degree Applicable
54 hours lecture
Corequisite: RTV 01 (May have been taken previously)
Prepares students for experience working on-the-air and behind-the-scenes at the campus terrestrial and Internet radio stations. Focuses on Federal Communication Commission (FCC) rules, regulations, documentation and licensing, SoundExchange rules regarding digital performances and the Digital Media Copyright Act and its impact on Internet streaming. Following successful completion of this course, students are eligible to work at the campus stations.

R-TV 30 — On-Camera Performance  1.5 Units
Degree Applicable, CSU
54 to 108 hours lab
Prerequisite: R-TV 01 AND R-TV 02 AND R-TV 11A AND R-TV 95
Participation in the College radio stations. Activities include on-air performance and behind-the-scenes roles.

R-TV 31 — History of Radio DJs  1 to 2 Units
Degree Applicable
54 to 108 hours lab
Prerequisite: R-TV 01 AND R-TV 02 AND R-TV 11A AND R-TV 95
Experience in the operation of the college radio stations. Activities focus on studio equipment operation, station procedures and on-air techniques.

R-TV 32 — Radio - TV Internet Applications  3 Units
Degree Applicable
54 hours lecture
Prerequisite: R-TV 01 and RTV 02 and R-TV 11A and RTV 95
Examinations in the operation of the college radio stations. Activities focus on studio equipment operation, station procedures and on-air techniques.

R-TV 33 — Radio Show Producer Techniques  3 Units
Degree Applicable
54 hours lecture
Corequisite: R-TV 01 (may have been taken previously)
Covers the behind-the-scenes aspects of producing a radio show, with special emphasis on generating ideas for specific audiences, identifying and booking guests and preparing interviews for broadcast.

R-TV 34 — On-Camera Performance  3 Units
Degree Applicable
27 hours lecture
Advisory: R-TV 01
On-camera techniques used in news and sports anchoring and reporting including make-up, hair, wardrobe and overall presentation.

R-TV 35 — Pop Culture in the Media  3 Units
Degree Applicable
54 hours lecture
Examinations American Pop Culture and its various forms as it applies to the 1920s through the 1990s through the major fads and fancies of those decades as reflected in and influenced by radio, TV, film.
R-TV 96B — Campus Radio Station Lab: Disc Jockey and News Anchor/Reporter Skills 1 to 2 Units Degree Applicable
54 to 108 hours lab
Prerequisite: R-TV 96A
Participation in the college radio stations. Activities focus on developing Disc Jockey, News Anchor, and News Reporter skills.

R-TV 96C — Campus Radio Station Lab: Hosting and Management Skills 1 to 2 Units Degree Applicable
54 to 108 hours lab
Prerequisite: R-TV 96B
Participation in the college radio stations including individual show creation and execution as well as management skills.

R-TV 97A — Radio/Entertainment Industry Seminar 1 Unit Degree Applicable
18 hours lecture
Prerequisite: Approval by Instructor Corequisite: R-TV 97B
Evaluating professionalism and problem-solving techniques related to their internship experiences.

R-TV 97B — Radio/Entertainment Industry Internship 1 Unit Degree Applicable
75 hours lab
Prerequisite: Approval by Instructor Corequisite: R-TV 97A
On-the-job experience in the radio or entertainment industry in order to strengthen and broaden skills in the workplace. A minimum of 60 unpaid or 75 paid hours of supervised work is required for each unit of credit. It is recommended that the hours per week be equally distributed throughout the semester.

R-TV 99 — Radio/TV Special Projects 2 Units Degree Applicable
36 hours lecture
Prerequisite: Completion of six R-TV course units
Students earn credit via a broadcasting or film course of study customized for the student. Instructor authorization is needed prior to enrollment.

R-TV 100 — Work Experience in Film and Television 1 to 3 Units Degree Applicable (May be taken for option of letter grade or Pass/No Pass)
75 to 225 hours lab
Prerequisite: Completion of 12 units of R-TV courses from among the following: R-TV 1, 14, 18A, 19B, 20, 21, 22, 23, taken at Mt. San Antonio College. Compliance with work experience regulations as designated in the college catalog.

R-TV 101 — Work Experience in Broadcast Entertainment 1 to 2 Units Degree Applicable
75 to 150 hours lab
Prerequisite: Completion of RTV 01, RTV 97A, RTV 97B and any three other RTV units, taken at Mt. San Antonio College. Compliance with Work Experience regulations as designated in the College Catalog.

R-TV 105 — Clinical Experience 1 to 2 Units Degree Applicable
150 hours lab
Prerequisite: RAD 1A
Clinical experience in the radiology department of affiliated hospitals under the supervision of a licensed radiologic technologist. Emphasis on upper and lower limbs, shoulder girdle, pelvis, chest, and abdomen. Health physical, background check, drug test, and CPR certification is required. Intended for students enrolled in Radiologic Technology Program. Designed to meet The Joint Review Committee on Education in Radiologic Technology (JRCERT) accreditation standards.

RAD 1B — Clinical Experience 1B 3 Units Degree Applicable, CSU
150 hours lab
Prerequisite: RAD 1A
Clinical experience in the radiology department of affiliated hospitals under the supervision of a licensed radiologic technologist. Emphasis on upper and lower limbs, shoulder girdle, pelvis, chest, and abdomen. Health physical, background check, drug test, and CPR certification is required. Intended for students enrolled in Radiologic Technology Program. Designed to meet The Joint Review Committee on Education in Radiologic Technology (JRCERT) accreditation standards.

RAD 2A — Clinical Experience 2A 5 Units Degree Applicable, CSU
256 hours lab
Prerequisite: RAD 1B Corequisite: RAD 62A, RAD 62B, and RAD 62C
Clinical experience in the radiology department of affiliated hospitals under the supervision of a licensed radiologic technologist. Emphasis on cervical spine, cross-table trauma cervical spine, thoracic spine, lumbar spine, ribs, paranasal sinuses, esophagus, upper gastrointestinal, small bowel and barium enema. Health physical, background check, drug test, and CPR certification is required. Intended for students enrolled in Radiologic Technology Program. Designed to meet The Joint Review Committee on Education in Radiologic Technology (JRCERT) accreditation standards.

RAD 2B — Clinical Experience 2B 3 Units Degree Applicable, CSU
144 hours lab
Prerequisite: RAD 2A
Clinical experience in the radiology department of affiliated hospitals under the supervision of a licensed radiologic technologist. Emphasis on cervical spine, cross-table trauma cervical spine, thoracic spine, lumbar spine, ribs, paranasal sinuses, esophagus, upper gastrointestinal, small bowel and barium enema. Health physical, background check, drug test, and CPR certification is required. Intended for students enrolled in Radiologic Technology Program. Designed to meet The Joint Review Committee on Education in Radiologic Technology (JRCERT) accreditation standards.
Course Descriptions

**RAD 3A — Clinical Experience 3A** 7.5 Units
Degree Applicable, CSU
(May be taken for Pass/No Pass only)
384 hours lab
Prerequisite: RAD 2B
Corequisite: RAD 63
Clinical experience in the radiology department of affiliated hospitals under the supervision of a licensed radiologic technologist. Emphasis on special and elective procedures. Health physical, background check, drug test, and CPR certification is required. Intended for students enrolled in Radiologic Technology Program. Designed to meet The Joint Review Committee on Education in Radiologic Technology (JRCERT) accreditation standards.

**RAD 3B — Clinical Experience 3B** 3 Units
Degree Applicable, CSU
(May be taken for Pass/No Pass only)
150 hours lab
Prerequisite: RAD 3A
Clinical experience in the radiology department of affiliated hospitals under the supervision of a licensed radiologic technologist. Emphasis on special and elective procedures. Health physical, background check, drug test, and CPR certification is required. Intended for students enrolled in Radiologic Technology Program. Designed to meet The Joint Review Committee on Education in Radiologic Technology (JRCERT) accreditation standards.

**RAD 3C — Clinical Experience 3C** 7.5 Units
Degree Applicable, CSU
(May be taken for Pass/No Pass only)
384 hours lab
Prerequisite: RAD 3B
Clinical experience in the radiology department of affiliated hospitals under the supervision of a licensed radiologic technologist. Emphasis on special and elective procedures. Health physical, background check, drug test, and CPR certification is required. Intended for students enrolled in Radiologic Technology Program. Designed to meet The Joint Review Committee on Education in Radiologic Technology (JRCERT) accreditation standards.

**RAD 4 — Clinical Experience IV** 4.5 Units
Degree Applicable, CSU
243 hours lab
Prerequisite: RAD 3C
Clinical experience in the radiology department of affiliated hospitals under the supervision of a licensed radiologic technologist. Emphasis on developing imaging and/or therapeutic technologies. Health physical, background check, drug test, and CPR certification is required. Intended for students enrolled in Radiologic Technology Program.

**RAD 30 — Radiographic Pathology** 1.5 Units
Degree Applicable
24 hours lecture
Corequisite: RAD 3A

**RAD 31 — Fluoroscopy and Radiobiology** 5.5 Units
Degree Applicable
90 hours lecture
15 hours lab
Prerequisite: RAD 62A
Corequisite: RAD 3C
Areas of radiobiology, radiations physics, exposure reduction, fluoroscopic equipment and operation, image evaluation, quality control and patient considerations. Intended for students enrolled in Radiologic Technology Program.

**RAD 32 — Digital Imaging in Radiology** 2 Units
Degree Applicable
36 hours lecture
Prerequisite: RAD 61A
Radiographic digital imaging system components, principles, operation, quality assurance, and maintenance. Factors impacting image acquisition, display, archiving and retrieval are discussed. Guidelines for selecting exposure factors and evaluating imaging within a digital system assist students to bridge between film-based and digital imaging systems. Intended for students enrolled in Radiologic Technology Program.

**RAD 50 — Introduction to Radiologic Science** 3 Units
Degree Applicable, CSU
54 hours lecture
Prerequisite: RAD 50
Foundations of radiography and the practitioner’s role in the healthcare delivery system. Principles, practices and policies of healthcare organizations are examined and discussed in addition to the professional responsibilities of the radiographer. Includes radiation safety and a foundation in ethics and law related to the practice of medical imaging. Intended for students enrolled in Radiologic Technology Program.

**RAD 61A — Theory of Radiologic Technology** 4 Units
Degree Applicable, CSU
72 hours lecture
Prerequisite: RAD 50
Corequisite: RAD 6A and RAD 61B and RAD 61C
Structure of the atom, radiation, radiographic equipment, exposure factor formulation, technique charts, and radiation protection. Intended for students enrolled in Radiologic Technology Program.
<table>
<thead>
<tr>
<th>COURSE DESCRIPTIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>RAD 62C — Radiographic Procedures II Laboratory</strong></td>
</tr>
<tr>
<td>18 hours lecture</td>
</tr>
<tr>
<td>18 hours lab</td>
</tr>
<tr>
<td><strong>Prerequisite:</strong> RAD 61A, RAD 61B and RAD 61C</td>
</tr>
<tr>
<td><strong>Corequisite:</strong> RAD 62A, RAD 62B, RAD 2A</td>
</tr>
<tr>
<td>Practical application of standard imaging procedures and special studies. Consideration is given to the evaluation of optimal images. Focus on anatomy and positioning of the vertebral column, bony thorax, cranium, gastrointestinal (GI) system and genitourinary (GU) system. Intended for students enrolled in Radiologic Technology Program.</td>
</tr>
<tr>
<td><strong>RAD 63 — Theory of Radiologic Technology</strong></td>
</tr>
<tr>
<td>72 hours lecture</td>
</tr>
<tr>
<td><strong>Corequisite:</strong> RAD 3A</td>
</tr>
<tr>
<td>Special radiographic studies, advanced modalities, radiation protection, contrast media use and quality assurance processes relative to film-based radiology. Intended for students enrolled in Radiologic Technology Program.</td>
</tr>
<tr>
<td><strong>RAD 64 — Theory of Radiologic Technology</strong></td>
</tr>
<tr>
<td>72 hours lecture</td>
</tr>
<tr>
<td><strong>Corequisite:</strong> RAD 3C</td>
</tr>
<tr>
<td>Analytical review of the radiologic technology core curriculum. Serves as preparation for state certification and national registry exams. Intended for students enrolled in Radiologic Technology Program.</td>
</tr>
<tr>
<td><strong>RAD 91 — Patient Care in Radiologic Sciences</strong></td>
</tr>
<tr>
<td>45 hours lecture</td>
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<tr>
<td>15 hours lab</td>
</tr>
<tr>
<td>Concepts of optimal patient care, including consideration for the physical and psychological needs of the patient and family. Routine and emergency patient care procedures are described, pharmacology, as well as infection control procedures using standard precautions. The role of the radiographer in patient education is identified. Intended for students enrolled in Radiologic Technology Program.</td>
</tr>
<tr>
<td><strong>READ 70 — Approaches to Reading</strong></td>
</tr>
<tr>
<td>(May be taken for Pass/No Pass only)</td>
</tr>
<tr>
<td>54 hours lecture</td>
</tr>
<tr>
<td>Introduction to comprehension and vocabulary strategies, and self-reflection on reading.</td>
</tr>
<tr>
<td><strong>READ 80 — Developing Reading Comprehension</strong></td>
</tr>
<tr>
<td>(May be taken for Pass/No Pass only)</td>
</tr>
<tr>
<td>54 hours lecture</td>
</tr>
<tr>
<td><strong>Prerequisite:</strong> READ 70 or satisfactory score on reading placement test</td>
</tr>
<tr>
<td>Further development of reading comprehension and vocabulary strategies including self-awareness of reading capabilities.</td>
</tr>
<tr>
<td><strong>READ 90 — Preparing for College Reading</strong></td>
</tr>
<tr>
<td>(May be taken for option of letter grade or Pass/No Pass)</td>
</tr>
<tr>
<td>54 hours lecture</td>
</tr>
<tr>
<td><strong>Prerequisite:</strong> READ 80 or satisfactory score on reading placement test</td>
</tr>
<tr>
<td>Prepares students for college textbook reading. Emphasizes understanding vocabulary and college level text analysis and comprehension.</td>
</tr>
<tr>
<td><strong>READ 100 — Analysis and Critical Reading</strong></td>
</tr>
<tr>
<td>54 hours lecture</td>
</tr>
<tr>
<td><strong>Prerequisite:</strong> READ 90 or satisfactory score on reading placement test</td>
</tr>
<tr>
<td>Effective use of critical reading in a cross-disciplinary framework. Emphasis on the development of critical reading skills of interpretation, analysis and evaluation of texts to include: academic, business, and technology readings.</td>
</tr>
<tr>
<td><strong>RESD 50 — Theory and Principles of Respiratory Therapy</strong></td>
</tr>
<tr>
<td>36 hours lecture</td>
</tr>
<tr>
<td><strong>Prerequisite:</strong> ANAT 10A, ANAT 10B, CHEM 10, MATH 51, MEDI 90</td>
</tr>
<tr>
<td><strong>Corequisite:</strong> RESD 51A, RESD 52</td>
</tr>
<tr>
<td>History of respiratory care, patient confidentiality, patient safety, principles of infection control, bloodborne and airborne pathogens, ethical and legal implications of practice, professionalism, physical principles of respiratory care, and computer applications in respiratory care.</td>
</tr>
<tr>
<td><strong>RESD 51A — Respiratory Therapy Science</strong></td>
</tr>
<tr>
<td>54 hours lecture</td>
</tr>
<tr>
<td>54 hours lab</td>
</tr>
<tr>
<td><strong>Corequisite:</strong> RESD 50 and RESD 52</td>
</tr>
<tr>
<td>Principles of respiratory therapy equipment. Emphasis placed on methods of administration of therapy and application of specialized equipment in the clinical setting. Also includes respiratory physiology and oxygen transport.</td>
</tr>
<tr>
<td><strong>RESD 51B — Respiratory Therapy Science</strong></td>
</tr>
<tr>
<td>54 hours lecture</td>
</tr>
<tr>
<td>54 hours lab</td>
</tr>
<tr>
<td><strong>Prerequisite:</strong> RESD 50 and RESD 51A</td>
</tr>
<tr>
<td><strong>Corequisite:</strong> RESD 53 and RESD 60</td>
</tr>
<tr>
<td>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><strong>RESD 52 — Pulmonary Anatomy and Physiology</strong></td>
</tr>
<tr>
<td>54 hours lecture</td>
</tr>
<tr>
<td><strong>Prerequisite:</strong> MEDI 90, CHEM 10, ANAT 10A and 10B, MATH 51</td>
</tr>
<tr>
<td><strong>Corequisite:</strong> RESD 51A, RESD 50</td>
</tr>
<tr>
<td>Anatomic alterations of the lungs, etiology, overview of the cardiopulmonary clinical manifestations, and general management of commonly encountered cardiopulmonary diseases.</td>
</tr>
<tr>
<td><strong>RESD 53 — Cardiopulmonary Pathophysiology</strong></td>
</tr>
<tr>
<td>54 hours lecture</td>
</tr>
<tr>
<td><strong>Corequisite:</strong> RESD 51B</td>
</tr>
<tr>
<td>Anatomic alterations of the lungs, etiology, overview of the cardiopulmonary clinical manifestations, and general management of commonly encountered cardiopulmonary diseases.</td>
</tr>
<tr>
<td><strong>RESD 55 — Adult Respiratory Intensive Care</strong></td>
</tr>
<tr>
<td>54 hours lecture</td>
</tr>
<tr>
<td><strong>Corequisite:</strong> RESD 56B</td>
</tr>
<tr>
<td>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><strong>RESD 56A — Techniques of Respiratory Therapy</strong></td>
</tr>
<tr>
<td>(May be taken for Pass/No Pass only)</td>
</tr>
<tr>
<td>143 hours lab</td>
</tr>
<tr>
<td><strong>Prerequisite:</strong> RESD 51B</td>
</tr>
<tr>
<td><strong>Corequisite:</strong> RESD 57B</td>
</tr>
<tr>
<td>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

RESD 56B — Techniques of Respiratory Therapy 6 Units  
Degree Applicable, CSU  
(May be taken for Pass/No Pass only)  
324 hours lab  
Prerequisite: RESD 56A  
Corequisite: RESD 55, RESD 58  
Clinical practice in the hospital setting. The student is expected to perform basic therapeutic modalities mastered in RESD 51A and RESD 51B and apply concepts learned in the first three semesters of the Respiratory Therapy Program. Instruction in the application of therapeutic modalities and diagnostic procedures performed in the management and treatment of adult and pediatric patients requiring respiratory care are done. Emphasis of intensive care and mechanical ventilator procedures are introduced.

RESD 56C — Techniques of Respiratory Therapy 2.5 Units  
Degree Applicable, CSU  
(May be taken for Pass/No Pass only)  
143 hours lab  
Prerequisite: RESD 55  
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  
Degree Applicable, CSU  
(May be taken for Pass/No Pass only)  
325 hours lab  
Prerequisite: RESD 56C  
Corequisite: RESD 59 and 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 57A — Special Procedures for Respiratory Care 1.5 Units  
Degree Applicable, CSU  
27 hours lecture  
Prerequisite: RESD 50  
Application of and skills development in bronchoscopy, blood drawing and analysis, chest drainage, microbiology for respiratory care, intermittent positive pressure breathing (IPPB), and blood gas data analysis.

RESD 57B — Special Procedures for Respiratory Care 1.5 Units  
Degree Applicable, CSU  
27 hours lecture  
Prerequisite: RESD 51B  
Corequisite: RESD 56A  
Application and skills development in pharmacology, bronchoscopy, mechanical ventilation, and arterial blood gas puncture.

RESD 58 — Neonatal Intensive Care 3 Units  
Degree Applicable, CSU  
54 hours lecture  
Corequisite: RESD 56B and 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  
Degree Applicable, CSU  
54 hours lecture  
Prerequisite: RESD 55  
Corequisite: RESD 56D and RESD 61  
Advanced practitioner review and evaluation of patient data, equipment manipulation, and therapeutic respiratory therapy procedures. Student self-assessment and preparation for board examinations, credentialing and employment. Students are required to purchase self-assessment examinations.

RESD 60 — Comprehensive Pulmonary Assessment 2 Units  
Degree Applicable, CSU  
36 hours lecture  
Corequisite: RESD 51B and RESD 53  
Techniques of pulmonary assessment including history taking, clinical laboratory data, pulmonary function testing data, chest X-rays, physical exam findings, arterial blood gas data, hemodynamic monitoring data, exhaled gas monitoring data, nutrition, and synopsis of findings; extensive practice in interpreting this data.

RESD 61 — Current Issues in Respiratory Care 3 Units  
Degree Applicable, CSU  
54 hours lecture  
Prerequisite: RESD 56C  
Corequisite: RESD 56D and RESD 59  
Examines recently developed health care techniques and strategies for diagnostics, assessment, and therapeutics and their impact on respiratory therapists.

RESD 62 — Pharmacology for Respiratory Care 1.5 Units  
Degree Applicable, CSU  
27 hours lecture  
Prerequisite: RESD 50 and RESD 51A and RESD 52  
Commonly used respiratory care drugs with emphasis on dosage, indications, contraindications, adverse reactions, and expected outcomes.

SL 2 — Linked Service Learning 1 Unit  
Degree Applicable, CSU  
(May be taken for option of letter grade or Pass/No Pass)  
54 hours lab  
Links service learning with content-specific courses across the college curriculum. Allows students to explore interests or career objectives through community involvement and service. Requires arranged hours of community-based activity. Must be enrolled concurrently in a course with a service learning link.

SIGN 101 — American Sign Language 1 4 Units  
Degree Applicable, CSU, UC  
72 hours lecture  
Fundamentals of American Sign Language. Preparation for visual/gestural communication followed by intensive work on comprehension skills; modeling of grammatical structures; general information about Deaf culture.

SIGN 102 — American Sign Language 2 4 Units  
Degree Applicable, CSU, UC  
72 hours lecture  
Prerequisite: SIGN 80 or SIGN 101 or equivalent fluency  
Further study of fundamentals of American Sign Language focusing on comprehension skills, grammatical structures and practice in the expressive aspects of the language, as well as exposure to Deaf culture.

SIGN 103 — American Sign Language 3 4 Units  
Degree Applicable, CSU, UC  
72 hours lecture  
Prerequisite: SIGN 102  
American Sign Language focused on developing comprehension skills, advanced grammatical structures with continued emphasis on expressive skills in narrative. Aspects of Deaf culture will be studied. Field trips required.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Degree Applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>SIGN 104</td>
<td>American Sign Language</td>
<td>4</td>
<td>Degree Applicable, CSU, UC</td>
</tr>
<tr>
<td></td>
<td>72 hours lecture</td>
<td></td>
<td>Degree Applicable, CSU, UC</td>
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<td></td>
<td>Prerequisite: SIGN 103</td>
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<tr>
<td></td>
<td>Expressive and conversational skills in American Sign Language (ASL) along with continued focus on grammatical and cultural features.</td>
<td></td>
<td><strong>SIGN 105</strong> American Sign Language 5 4 Units Degree Applicable, CSU</td>
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<tr>
<td></td>
<td>72 hours lecture</td>
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<td>Degree Applicable, CSU, UC</td>
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<td></td>
<td>Prerequisite: SIGN 104</td>
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<tr>
<td></td>
<td>Advanced American Sign Language (ASL) communication skills with emphasis on signing descriptive narratives and strengthening conversational skills. Target language practice includes holding discussions and making decisions. Further exposure to Deaf cultural components.</td>
<td></td>
<td><strong>SIGN 108</strong> Fingerspelling 2 Units Degree Applicable</td>
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<td>(May be taken for Pass/No Pass only)</td>
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<tr>
<td></td>
<td>36 hours lecture</td>
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<td></td>
<td>Prerequisite: SIGN 102</td>
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<tr>
<td></td>
<td>Receptive and expressive fingerspelling.</td>
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<td></td>
<td><strong>SIGN 201</strong> Introduction to Deaf Studies</td>
<td>3</td>
<td>Degree Applicable, CSU</td>
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<tr>
<td></td>
<td>54 hours lecture</td>
<td></td>
<td>Degree Applicable, CSU, UC</td>
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<tr>
<td></td>
<td>Topics central to the Deaf community including Deaf education, Deaf/hearing relationships, and Deaf history. Topics include early intervention and education of deaf children, communication strategies and their effectiveness, anatomy and causes of deafness, and Deaf people as a cultural group. Gives a holistic perspective of Deaf people applicable to further studies in Deaf culture and community.</td>
<td></td>
<td><strong>SIGN 202</strong> American Deaf Culture 3 Units Degree Applicable</td>
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<tr>
<td></td>
<td><strong>SIGN 203</strong> American Sign Language Structure</td>
<td>3</td>
<td>Degree Applicable, CSU, UC</td>
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<tr>
<td></td>
<td>54 hours lecture</td>
<td></td>
<td>Degree Applicable, CSU, UC</td>
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<tr>
<td></td>
<td>Prerequisite: SIGN 103</td>
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<td></td>
<td>Linguistic structure of American Sign Language, including phonology, morphology and syntax. Sociolinguistic issues will also be discussed.</td>
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<td></td>
<td><strong>SIGN 220</strong> Translation: American Sign Language/English 3 Units Degree Applicable, CSU</td>
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<td></td>
<td>54 hours lecture</td>
<td></td>
<td>Degree Applicable, CSU, UC</td>
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<tr>
<td></td>
<td>Prerequisite: SIGN 104</td>
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<tr>
<td></td>
<td>Corequisite: SIGN 210 (May have been taken previously.) American Sign Language and English translation by comparing texts in both languages.</td>
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<td></td>
<td><strong>SIGN 223</strong> Principles of Interpreting</td>
<td>3</td>
<td>Degree Applicable, CSU</td>
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<tr>
<td></td>
<td>54 hours lecture</td>
<td></td>
<td>Degree Applicable, CSU, UC</td>
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<tr>
<td></td>
<td>Prerequisite: SIGN 103 and Eligibility for ENGL 1A</td>
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<tr>
<td></td>
<td>Aspects of interpreting theory and process including the history of sign language interpreting. Examines the interpreter’s role and ethical standards.</td>
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<td></td>
<td><strong>SIGN 225</strong> Ethical Decision Making for Interpreters 2 Units Degree Applicable</td>
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<td></td>
<td>36 hours lecture</td>
<td></td>
<td>Degree Applicable, CSU, UC</td>
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<tr>
<td></td>
<td>Prerequisite: SIGN 223 and SIGN 231</td>
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<td></td>
<td>Development of ethical decision-making skills through the analytical construct of the Demand/Control Schema (DC-S) for interpreting work. Includes professional work effectiveness and professional wellness.</td>
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<tr>
<td></td>
<td><strong>SIGN 227</strong> Cognitive Processing for Interpreters 4 Units Degree Applicable</td>
<td></td>
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<tr>
<td></td>
<td>(May be taken for option of letter grade or Pass/No Pass) 54 hours lecture 54 hours lab</td>
<td></td>
<td>Degree Applicable, CSU, UC</td>
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<tr>
<td></td>
<td>Prerequisite: SIGN 104 and ENGL 1A</td>
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<tr>
<td></td>
<td>Corequisite: SIGN 223 (May have been taken previously) Development of cognitive processing skills necessary for interpreting between American Sign Language (ASL) and English. Constructing and deconstructing meaning, memory, listening and attending will be covered. Includes memory building, restating, cloze, and listening exercises.</td>
<td></td>
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<tr>
<td></td>
<td><strong>SIGN 231</strong> Interpreting</td>
<td>4</td>
<td>Degree Applicable</td>
</tr>
<tr>
<td></td>
<td>(May be taken for option of letter grade or Pass/No Pass) 54 hours lecture 54 hours lab</td>
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<td>Degree Applicable, CSU, UC</td>
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<tr>
<td></td>
<td>Prerequisite: SPCH 1A and SIGN 227</td>
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<td></td>
<td>Skill development in consecutive interpreting from American Sign Language (ASL) to English and English to ASL. Processing skills and task management will be emphasized.</td>
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<tr>
<td></td>
<td><strong>SIGN 232</strong> Advanced Interpreting</td>
<td>4</td>
<td>Degree Applicable</td>
</tr>
<tr>
<td></td>
<td>(May be taken for option of letter grade or Pass/No Pass) 54 hours lecture 54 hours lab</td>
<td></td>
<td>Degree Applicable, CSU, UC</td>
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<td></td>
<td>Prerequisite: SIGN 231</td>
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<tr>
<td></td>
<td>Refines basic interpreting skills with emphasis on simultaneous interpreting. Intensive skill development in interpreting from English to American Sign Language (ASL) and ASL to English.</td>
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<tr>
<td></td>
<td><strong>SIGN 233</strong> Applied Interpreting</td>
<td>2</td>
<td>Degree Applicable</td>
</tr>
<tr>
<td></td>
<td>(May be taken for Pass/No Pass only)</td>
<td></td>
<td>Degree Applicable, CSU, UC</td>
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<tr>
<td></td>
<td>36 hours lecture</td>
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<td>Prerequisite: SIGN 232</td>
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<td></td>
<td>Capstone class to the interpreter training program. Course emphasizes application of knowledge and skills developed. Students will develop a direct connection to the field of interpreting and explore continuing education opportunities. Students are required to complete 40 hours of out-of-class interpreting and participation in out-of-class interpreting continuing education.</td>
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<td><strong>SIGN 240</strong> Vocabulary Building for Interpreters 2 Units Degree Applicable, CSU</td>
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<td></td>
<td>(May be taken for Pass/No Pass only)</td>
<td></td>
<td>Degree Applicable, CSU, UC</td>
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<tr>
<td></td>
<td>36 hours lecture</td>
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<td></td>
<td>Prerequisite: SIGN 104</td>
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<tr>
<td></td>
<td>Vocabulary expansion in both ASL and English with the goal of improving interpretations between these two languages. The course will focus on context, semantics, and parts of speech in determining culturally appropriate vocabulary choices. Interpreting students will learn to apply their growing vocabularies to ASL-English interpretations.</td>
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<tr>
<td></td>
<td><strong>SIGN 250</strong> Interpreting with Classifiers</td>
<td>1.5</td>
<td>Degree Applicable</td>
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<tr>
<td></td>
<td>(May be taken for Pass/No Pass only)</td>
<td></td>
<td>Degree Applicable, CSU, UC</td>
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<tr>
<td></td>
<td>18 hours lecture</td>
<td></td>
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<tr>
<td></td>
<td>Prerequisites: SIGN 104 and SIGN 210</td>
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<tr>
<td></td>
<td>An overview of the common forms of ASL classifier predicates. Developing skill in establishing figure/ground, visualization, and shifting perspectives. Applying classifier predicates within the context of interpreting from English into American Sign Language.</td>
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<tr>
<td>Course Code</td>
<td>Course Title</td>
<td>Units</td>
<td>Description</td>
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<tr>
<td>SIGN 260</td>
<td>Video Interpreting</td>
<td>1.5</td>
<td>Video interpreting and skill development as a video interpreter. Includes video relay interpreting (VRS), video remote interpreting (VRI), technical components used in video interpreting, and ethical consideration of the video interpreter.</td>
</tr>
<tr>
<td>SIGN 299</td>
<td>Special Projects in Sign Language/Interpreting</td>
<td>2</td>
<td>In order to offer students the opportunity to explore their disciplines to greater depth, the various departments from time to time offer Special Projects courses. The content of each course and the methods of study vary from semester to semester, and depend on the particular project under consideration. Students must have an instructor’s authorization before enrolling in this class.</td>
</tr>
<tr>
<td>SOC 1</td>
<td>Sociology</td>
<td>3</td>
<td>Systematic study of human relations and social structures emphasizing the interaction between personality, culture and society. Special consideration is given to an understanding of group behavior, personality formation, social organization, and social change.</td>
</tr>
<tr>
<td>SOC 1H</td>
<td>Sociology - Honors</td>
<td>3</td>
<td>Systematic study of human relations and social structures emphasizing the interaction between personality, culture and society. Special consideration is given to an understanding of group behavior, personality formation, social organization, and social change.</td>
</tr>
<tr>
<td>SOC 2</td>
<td>Contemporary Social Problems</td>
<td>3</td>
<td>Sociological principles and concepts as applied in the understanding of social problems. Special emphasis on the analysis of social values, social organization, role, status and stress, and also on the study of controversial public issues that arise in contemporary American society. Students will be encouraged to evaluate and discuss both the theoretical and practical approaches to social problems.</td>
</tr>
<tr>
<td>SOC 2H</td>
<td>Contemporary Social Problems - Honors</td>
<td>3</td>
<td>Sociological principles and concepts as applied in the understanding of social problems. Special emphasis on the analysis of social values, social organization, role, status and stress, and also on the study of controversial public issues that arise in contemporary American society. Students will be encouraged to evaluate and discuss both the theoretical and practical approaches to social problems.</td>
</tr>
<tr>
<td>SOC 3</td>
<td>Introduction to Gerontology</td>
<td>3</td>
<td>The characteristics, life circumstances, and problems of people as they progress through life. Emphasizes theoretical perspectives on the process of aging and the adjustment to aging. Covers sociological factors and social institutions that affect individuals as they move through the life course.</td>
</tr>
<tr>
<td>SOC 4</td>
<td>Introduction to Gerontology</td>
<td>3</td>
<td>A scientific analysis of the nature, extent, and causes of violations of societal rules of behavior that are formally defined as crime and delinquency. Includes an analysis of the theoretical perspectives of the sociology of deviance on the criminal justice system and the impact of crime on society.</td>
</tr>
<tr>
<td>SOC 5</td>
<td>Introduction to Criminology</td>
<td>3</td>
<td>A scientific analysis of the nature, extent, and causes of violations of societal rules of behavior that are formally defined as crime and delinquency. Includes an analysis of the theoretical perspectives of the sociology of deviance on the criminal justice system and the impact of crime on society.</td>
</tr>
<tr>
<td>SOC 5H</td>
<td>Introduction to Criminology - Honors</td>
<td>3</td>
<td>A scientific analysis of the nature, extent, and causes of violations of societal rules of behavior that are formally defined as crime and delinquency. Includes an analysis of the theoretical perspectives of the sociology of deviance on the criminal justice system and the impact of crime on society.</td>
</tr>
<tr>
<td>SOC 7</td>
<td>Sociology of Religion</td>
<td>3</td>
<td>An analysis of religion as a social institution. Attention will focus on the influence that religion has on American society, religious movements, norms, symbols and the social manifestations of religious observable facts.</td>
</tr>
<tr>
<td>SOC 14</td>
<td>Marriage and the Family</td>
<td>3</td>
<td>Sociological functions of dating, engagement, weddings, marriage, and the family. Focuses on influences and theories of mate selection, love, and interpersonal attraction. Covers trends and changes in marriage, the family, and gender roles. Explores different types of families and family patterns.</td>
</tr>
<tr>
<td>SOC 14H</td>
<td>Marriage and the Family - Honors</td>
<td>3</td>
<td>Sociological functions of dating, engagement, weddings, marriage, and the family. Focuses on influences and theories of mate selection, love, and interpersonal attraction. Covers trends and changes in marriage, the family, and gender roles. Explores different types of families and family patterns.</td>
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<tr>
<td>SOC 15</td>
<td>Child Development</td>
<td>3</td>
<td>Theoretical aspects of physical, social, emotional and cognitive development from conception through adolescence. Requires observation of children.</td>
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Catalog Cover

Bookmarks

Contents
Course Descriptions

n SOC 20H — Sociology of Ethnic Relations - Honors
3 Units
Degree Applicable, CSU, UC
54 hours lecture
Prerequisite: Acceptance into the Honors Program
Ethnic and racial groups in the U.S. and social factors leading
to prejudice, discrimination, and stereotypes. Four major ethnic
groups (Blacks, Asians, Native Americans, and Latinos) examined
with emphasis placed on historical experiences, contemporary
circumstances and future trends. An honors course designed to
provide an enriched experience. Students may not receive credit
for both SOC 20 and SOC 20H.
n SOC 36 — Asian American Communities
3 Units
Degree Applicable, CSU, UC
54 hours lecture
A socio-cultural study of Asian Americans that includes race,
class and gender. Explores the contemporary experiences of
peoples originating in the Pacifc Islands, Southeast Asia, South
Asia, and East Asia; emphasizes social structure, social change,
and offers a theoretical framework for analysis.
n SOC 91 — Service Learning for Sociology
1 Unit
Degree Applicable, CSU
(May be taken for option of letter grade or Pass/No Pass)
18 hours lecture
Prerequisite: Eligibility for ENGL 68
Increases awareness and appreciation for civic responsibility
through service learning. Students will examine the sociological
dynamics of community service and assess specifc needs for
community service and fundraising. Field trips required.
n SOC 91L — Service Learning for Sociology Lab
.5 to 2 Units
Degree Applicable, CSU
(May be taken for option of letter grade or Pass/No Pass)
27 to 108 hours lab
Corequisite: SOC 91 (May have been taken previously.)
Examines and addresses community needs through service
learning. Students will organize fundraising and other community
events. Field trips required.

n SOC 99 — Special Projects in Sociology
2 Units
Not Degree Applicable, CSU
36 hours lecture
Offers students recognition for their academic interests in sociology and the opportunity to explore the discipline of sociology
to greater depth. The content of the course and the methods of
study vary from semester to semester and depend on the particular project under consideration.

SPANISH
n SPAN 1 — Elementary Spanish

4 Units
Degree Applicable, CSU, UC

72 hours lecture
Conversing, reading, and writing in Spanish at the elementary
level. Includes essentials of pronunciation, vocabulary, idioms
and grammatical structures along with an introduction to Hispanic culture.
n SPAN 2 — Continuing Elementary Spanish
4 Units
Degree Applicable, CSU, UC
72 hours lecture
Prerequisite: SPAN 1
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.
n SPAN 3 — Intermediate Spanish

4 Units
Degree Applicable, CSU, UC
(May be taken for option of letter grade or Pass/No Pass)
72 hours lecture
Prerequisite: SPAN 2
Further development of communicative profciency in Spanish.
Further study and review of grammar. Increasing emphasis on
reading and writing as tools in exploring Hispanic civilization.
n SPAN 4 — Continuing Intermediate Spanish
4 Units
Degree Applicable, CSU, UC
(May be taken for option of letter grade or Pass/No Pass)
72 hours lecture
Prerequisite: SPAN 3
Increased profciency in speaking, reading and writing Spanish.
Review of grammar, increased vocabulary building. Readings and
discussions on Hispanic cultural topics. Introduction to Hispanic
literature.

4 Units
n SPAN 11 — Spanish for the Spanish Speaking
Degree Applicable, CSU, UC
72 hours lecture
Provides Spanish-speaking students opportunity to improve skills
in standard Spanish grammar and vocabulary and to broaden
their understanding of Hispanic cultures. Focuses on developing
vocabulary, improving orthography and the use of grammatical
structures, both oral and written. Class instruction conducted in
Spanish.
n SPAN 12 — Continuing Spanish for the Spanish Speaking
4
Units
Degree Applicable, CSU, UC
72 hours lecture
Prerequisite: SPAN 11 or equivalent
Provides Spanish-speaking students with previous formal study
of Spanish with further development and improvement of skills in
standard Spanish and a broader understanding of Hispanic cultures. Culturally-based topics are the focus of readings and class
discussions. Class instruction conducted in Spanish.
n SPAN 53 — Conversational Spanish
3 Units
Degree Applicable, CSU, UC
(May be taken for option of letter grade or Pass/No Pass)
54 hours lecture
Prerequisite: SPAN 2
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.
n SPAN 54 — Continuing Conversational Spanish
3 Units
Degree Applicable, CSU, UC
(May be taken for option of letter grade or Pass/No Pass)
54 hours lecture
Prerequisite: SPAN 53
Development of advanced Spanish conversational skills. Emphasis on collaborative activities and practical use of the language.
Extensive exposure to Hispanic culture. Grammar is presented in
context.

SPEECH
n SPCH 1A — Public Speaking

4 Units
Degree Applicable, CSU, UC

72 hours lecture
Prerequisite: Eligibility for ENGL 68
Study and apply rhetorical principles to research and analyze topics, write basic and advanced speech outlines, and deliver effective public speeches. Perform speaking and listening assignments
that utilize effective verbal, vocal and physical communicative
strategies, and critical/analytical techniques. Students may not
receive credit for both SPCH 1A and SPCH 1AH.

Section 10

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COURSE DESCRIPTIONS

n SOC 20 — Sociology of Ethnic Relations
3 Units
Degree Applicable, CSU, UC
54 hours lecture
Prerequisite: Eligibility for ENGL 68
Ethnic and racial groups in the U.S. and social factors leading
to prejudice, discrimination, and stereotypes. Four major ethnic
groups (Blacks, Asians, Native Americans, and Latinos) examined
with emphasis placed on historical experiences, contemporary
circumstances and future trends.


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<th>COURSE DESCRIPTIONS</th>
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<tr>
<td><strong>SPCH 1AH — Public Speaking - Honors</strong>  4 Units  Degree Applicable, CSU, UC</td>
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</table>
| 72 hours lecture  
Prerequisite: Acceptance into the Honors Program  
Study and apply rhetorical principles to research and analyze topics, write basic and advanced speech outlines, and deliver effective public speeches. Perform speaking and listening assignments that utilize effective verbal, vocal and physical communicative strategies, and critical/analytical techniques. Students may not receive credit for both SPCH 1A and SPCH 1AH. An honors course designed to provide an enriched experience. Students may not receive credit for both SPCH 1A and SPCH 1AH. |
| **SPCH 1B — Intermediate Public Speaking**  3 Units  Degree Applicable, CSU, UC |
| 54 hours lecture  
Prerequisite: SPCH 1A or SPCH 1AH  
Extemporaneous, impromptu, manuscript and memorized speaking focusing on organization, research and delivery skills. Includes skills to analyze, synthesize, criticize, and advocate ideas using inductive and deductive reasoning, distinguishing fact from opinion and avoiding arguementative fallacies. |
| **SPCH 2 — Fundamentals of Communication**  4 Units  Degree Applicable, CSU, UC |
| 72 hours lecture  
Corequisite: ENGL 1A or ENGL 1AH (May have been taken previously)  
Fundamental theories and competencies in interpersonal, small group, public, and intercultural communication. Oral presentations are required. |
| **SPCH 3 — Voice and Diction**  3 Units  Degree Applicable, CSU, UC  
(May be taken for option of letter grade or Pass/No Pass) |
| 54 hours lecture  
Improvement of the speaking voice and oral communication style, including proper use for control and projection of the voice, vocal expressiveness, articulation and pronunciation. Develops accuracy of sound production for standard American speech through use of the International Phonetic Alphabet. Emphasizes individual diagnosis and extensive oral practice. |
| **SPCH 4 — Performance of Literature**  3 Units  Degree Applicable, CSU, UC |
| 54 hours lecture  
Theory, principles, and techniques of the performance of literature in solo and duo formats. Texts will include prose, poetry, drama, nonfiction and other forms. Appreciation of various genres of literature through textual analysis, oral reading, and evaluation. Practical training is given in critical reading, editing, and performance of poetry, prose, drama, essay, and experimental forms of performance text drawn from a diverse range of cultural viewpoints and voices. |
| **SPCH 6 — Group Communication**  3 Units  Degree Applicable, CSU, UC |
| 54 hours lecture  
Theory, principles, application and evaluation of group communication processes, including problem-solving, conflict management, decision making, and leadership. |
| **SPCH 7 — Intercultural Communication**  3 Units  Degree Applicable, CSU, UC |
| 54 hours lecture  
Prerequisite: Admittance into the Honors Program  
Theoretical dynamics of culture within communication contexts, and a practical exploration into improving intercultural communication competence for more effective interactions with others in a diverse society. Students may not receive credit for both SPCH 7 and SPCH 7H. |
| **SPCH 7H — Intercultural Communication - Honors**  3 Units  Degree Applicable, CSU, UC |
| 54 hours lecture  
Prerequisite: Acceptance into the Honors Program  
Theoretical dynamics of culture within communication contexts, and a practical exploration into improving intercultural communication competence for more effective interactions with others in a diverse society. Students may not receive credit for both SPCH 7 and SPCH 7H. |
| **SPCH 8 — Professional and Organizational Speaking**  4 Units  Degree Applicable, CSU |
| 72 hours lecture  
Corequisite: ENGL 1A or ENGL 1AH (may have been taken previously)  
Speech communication principles as employed in organizations, including decision making, leadership, conflict resolution and communication networks as well as substantial skills development in preparing and delivering oral presentations within professional contexts and in the workplace. Oral presentations are required. |
| **SPCH 8H — Professional and Organizational Speaking - Honors**  4 Units  Degree Applicable, CSU |
| 72 hours lecture  
Prerequisite: Acceptance into the Honors Program  
Theoretical dynamics of culture within communication contexts, and a practical exploration into improving intercultural communication competence for more effective interactions with others in a diverse society. Students may not receive credit for both SPCH 8 and SPCH 8H. |
| **SPCH 15 — Forensics: Fundamentals of Contest**  2 Units  Degree Applicable, CSU |
| (May be taken four times for credit)  
18 hours lecture  
54 hours lab  
Prerequisite: SPCH 1A or SPCH 1AH  
Advisory: SPCH 1A or SPCH 1AH  
Participation in one or more intercollegiate competitions as part of the Mt. SAC Forensics Team. Instructions in preparatory procedures for these tournaments, including techniques in persuasive oratory, interpretation, expository, impromptu, speech analysis, and debate. Student has option to choose area of interest and also an opportunity to participate in public community programs. Tournament attendance required outside regularly scheduled class hours. Students who repeat this course will benefit from additional competition experiences. |
| **SPCH 16 — Forensics: Individual Event Team**  3 Units  Degree Applicable, CSU |
| (May be taken four times for credit)  
167 hours activity  
Prerequisite: Admission by audition  
Speech performance skills and participation in multiple intercollegiate speaking competitions as members of the Mt. SAC Forensics Team. Auditions are held prior to the first week of class and are scheduled through the coaching staff. Tournament attendance required outside regularly scheduled class hours. Students who repeat this course will benefit from additional competition experiences. |
| **SPCH 17 — Forensics: Debate Team**  3 Units  Degree Applicable, CSU |
| (May be taken four times for credit)  
167 hours activity  
Prerequisite: SPCH 15 or SPCH 20  
Spreading and argumentation skills and participation in multiple intercollegiate speaking competitions as members of the Mt. SAC Forensics Team. Emphasis is on parliamentary debate and limited preparation speaking. Tournament attendance required outside regularly scheduled class hours. Students who repeat this course will benefit from additional competition experiences. |
| **SPCH 18 — Forensics: Reader’s Theater Team**  3 Units  Degree Applicable, CSU |
| (May be taken four times for credit)  
167 hours activity  
Prerequisite: SPCH 15  
Speech performance skills and participation in multiple public performances, including a regional, state or national-level forensics competition, as members of the Mt. SAC Forensics Team. Students will perform in one or more reader’s theater pieces. Tournament attendance required outside regularly scheduled class hours. Students who repeat this course will benefit from additional competition experiences. |
<table>
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<tr>
<th>Course</th>
<th>Units</th>
<th>Description</th>
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</table>
| SPCH 20 — Argumentation and Debate                                   | 3     | Degree Applicable, CSU, UC  
54 hours lecture  
Prerequisite: SPCH 1A or SPCH 1AH  
Rhetorical principles of argumentation in both theory and practice. Emphasis is given to rational discussion and reasoned advocacy. |
| SPCH 20H — Argumentation and Debate - Honors                        | 3     | Degree Applicable, CSU, UC  
54 hours lecture  
Prerequisite: SPCH 1A or SPCH 1AH and acceptance into the Honors Program  
Rhetorical principles of argumentation in both theory and practice. Emphasis is given to rational discussion and reasoned advocacy. An honors course designed to provide an enriched experience. Students may not receive credit for both SPCH 20 and SPCH 20H. Dtt-campus tournaments may be required. |
| SPCH 26 — Interpersonal Communication                               | 3     | Degree Applicable, CSU, UC  
54 hours lecture  
Prerequisite: Eligibility for ENGL 68  
Dynamics of everyday one-to-one communication focusing on the role behavior, psychology, and environment play in friendship, family, intimate, and workplace relationships. Factors that influence communication such as non-verbal cues, language, perception, culture, power dynamics, listening, self-concept, and health and personal well-being. Problems in relational communication and conflict management as well as adaption and success in interpersonal effectiveness. |
| SPCH 26H — Interpersonal Communication - Honors                      | 3     | Degree Applicable, CSU, UC  
54 hours lecture  
Prerequisite: Acceptance into the Honors Program  
Dynamics of everyday one-to-one communication focusing on the role behavior, psychology, and environment play in friendship, family, intimate, and workplace relationships. Factors that influence communication such as non-verbal cues, language, perception, culture, power dynamics, listening, self-concept, and health and personal well-being. Problems in relational communication and conflict management as well as adaption and success in interpersonal effectiveness. An honors course designed to provide an enriched experience. Students may not receive credit for both SPCH 26 and SPCH 26H. |
| SPCH 30 — Gateway to Communication Studies                           | 3     | Degree Applicable, CSU, UC  
54 hours lecture  
Corequisite: ENGL 1A or ENGL 1AH (may be taken previously)  
Advisory: READ 100  
Prominent issues in communication theory, introduction to the professional field of communication, and practice of multiple research methods. Particularly useful for students preparing for upper division study in communication or related disciplines. |
| SPCH 99 — Special Projects in Speech                                 | 2     | Degree Applicable, CSU  
36 hours lecture  
Offers 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. |
| SPCH 99H — Special Projects in Speech Honors                         | 2     | Degree Applicable  
36 hours lecture  
Offers 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. |
| STDY 80 — Foundations for Academic Success                           | 3     | Not Degree Applicable  
(May be taken for option of letter grade or Pass/No Pass)  
54 hours lecture  
Advisory: Eligibility for ENGL 67 and READ 80  
College success course emphasizing academic achievement that promotes learning through self-awareness, time-management, listening, note-taking, oral and written communication, test-taking, memorization, and the use of campus resources using a brain-based perspective. |
| STDY 85A — Basic Overview of Strategies for Academic Success          | 1     | Not Degree Applicable  
18 hours lecture  
Advisory: Eligibility for ENG 67 and Eligibility for READ 80  
Brain-based perspective emphasizing study techniques that include self-awareness, self-motivation, note-taking, test-taking, studying and learning strategies and learning preferences. |
| STDY 85C — Online Learning Success Skills                            | 1     | Not Degree Applicable  
18 hours lecture  
Advisory: Eligibility for ENG 67 and Eligibility for READ 90  
Introductory college success course overview for online learning using a brain-based perspective emphasizing success strategies designed to prepare students to take online classes and to introduce students to strategies for online learning. |
| STYD 100 — University-level Academic Success Strategies              | 3     | Degree Applicable, CSU  
54 hours lecture  
Advisory: Eligibility for ENGL 68 and eligibility for READ 100  
Advanced transfer-level college success course emphasizing study strategies that include Trine Brain Theory, Emotional Intelligence, learning theories, preparation for transfer, self-management, and critical thinking using a brain-based perspective. |
| SURV 1A — Surveying                                                  | 3     | Degree Applicable, CSU, UC  
36 hours lecture  
54 hours lab  
Prerequisite: MATH 150  
Surveying and use and care of surveying instruments such as steel tape, engineer’s level, theodolite, and total station. Includes horizontal and vertical measurements, layout, traverse, area computations, analysis and adjustments of systematic and random errors, stadia surveying, and mapping. |
| SURV 1B — Surveying                                                  | 3     | Degree Applicable, CSU, UC  
36 hours lecture  
54 hours lab  
Prerequisite: SURV 1A  
Land surveying including coordinate geometry, missing data, construction surveying, volumes, property surveying, control surveying, California Coordinate System, and horizontal and vertical curves. Introduces photogrammetric methods, 3-D laser scanning, Global Positioning System (GPS), Geographic Information System (GIS), mapping project, method of least squares, and land survey descriptions. Field trips are required. |
| TECH 60 — Customer Relations for the Technician                      | 2     | Degree Applicable  
36 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. |
### Course Descriptions

**THTR 9 — Introduction to Theater Arts**
- **3 Units**
- Degree Applicable, CSU, UC
- 54 hours lecture
- Aesthetic, artistic, technical, and business aspects of theater.

**THTR 10 — History of Theater Arts**
- **3 Units**
- Degree Applicable, CSU, UC
- 54 hours lecture
- *Prerequisite:* Eligibility for ENGL 1A
- Dramatic literature and the development of dramatic art. Representative plays and the history and development of the living stage will be stressed.

**THTR 11 — Principles of Acting I**
- **3 Units**
- Degree Applicable, CSU, UC
- 54 hours lecture
- *Prerequisite:* THTR 11
- Introduction to the basic principles and techniques of acting as an artistic discipline. Analysis of the plot, characterization and language of the drama. Performances of laboratory scenes, readings and exercises.

**THTR 12 — Principles of Acting II**
- **3 Units**
- Degree Applicable, CSU, UC
- 54 hours lecture
- *Prerequisite:* THTR 11
- Investigation of acting techniques through the study and presentation of varied dramatic scenes.

**THTR 14 — Stagecraft**
- **3 Units**
- Degree Applicable, CSU, UC
- 36 hours lecture
- 54 hours lab
- Theory and practice of scenery construction and stage lighting. Practical work in scene design and construction and lighting layouts, with the opportunity to perform these tasks in actual theatre situations. By virtue of the wide range of productions staged by the department, students who repeat this course will increase their skills and proficiency.

**THTR 15 — Play Rehearsal and Performance**
- **1 to 3 Units**
- Degree Applicable, CSU, UC
- (May be taken for option of letter grade or Pass/No Pass)
- 54 to 162 hours lab
- *Prerequisite:* THTR 11
- Planning, preparation, and presentation of college-sponsored dramatic productions. Emphasis on acting with some technical theater assignments. Attendance at performances is required.

**THTR 16 — Theatrical Make-Up**
- **3 Units**
- Degree Applicable, CSU, UC
- 45 hours lecture
- 36 hours lab
- Theory and practice of makeup for the stage. Emphasis will be on the design and application of straight, stylized, character, and other make-up techniques.

**THTR 17 — Acting for the Camera**
- **3 Units**
- Degree Applicable, CSU, UC
- 54 hours lecture
- *Prerequisite:* THTR 11
- Study in performance for TV and films. Background, methodology and techniques of acting for the camera. Includes TV equipment and how to make it work for the TV actor; study of image, type, and character, evaluation and use of scripts and monologues with practical exercises and on-camera scenes in various styles such as TV drama, sit-coms, commercials. Assists students prepare for an occupation in the performing areas of television and film.

**THTR 18 — Technical Theater Practicum**
- **1 Unit**
- Degree Applicable, CSU, UC
- (May be taken for option of letter grade or Pass/No Pass)
- 54 hours lab
- 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.

**THTR 19 — Theatrical Costuming**
- **3 Units**
- Degree Applicable, CSU, UC
- 36 hours lecture
- 54 hours lab
- Theatrical costuming design and construction. Includes the study of costume history, principles of costume design, fibers and textiles, basic costume construction, and design rendering techniques. Costume crew assignments for major productions will provide practical instruction in actual performance demands on costumes and their proper maintenance. Class is suitable for people interested in costuming for theater, dance, film, television, and reenactments.

**THTR 20 — Technical Theater Practicum**
- **1 Unit**
- Not Degree Applicable
- (May be taken for option of letter grade or Pass/No Pass)
- 54 hours lab
- 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.

**THTR 25 — Theatrical Playwriting**
- **3 Units**
- Degree Applicable, CSU
- 54 hours lecture
- *Advisory: Eligibility for ENGL 1A*
- Playwriting for the stage. Students will create and critique their own plays, as well as study and critique plays from established authors and productions. Includes basics of linear, episodic, 'A'- ‘B’ and ritual structures.

**THTR 26 — Theatrical Directing**
- **3 Units**
- Degree Applicable, CSU
- 108 hours lab
- Practice of directing theater through the creation and performance of new work for young audiences. Includes experience in story development, design, directing and performance culminating in the practical application of a series of public presentations.

**THTR 99 — Special Projects in Theater**
- **1 to 2 Units**
- Degree Applicable, CSU
- 54 to 108 hours lab
- In order to offer 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 must have instructor’s authorization before enrolling in this class. Students who repeat this course will make individual contracts with the instructor to ensure that proficiencies are enhanced.

**TUTR 10A — Introduction to Tutoring**
- **1 Unit**
- Not Degree Applicable
- 18 hours lecture
- Introduction to tutoring, with an emphasis on tutoring strategies, problem solving, and working with a diverse student population.

**TUTR 10B — Tutoring in the English Language**
- **1 Unit**
- Not Degree Applicable
- (May be taken for option of letter grade or Pass/No Pass)
- 18 hours lecture
- Tutoring in the English language with an emphasis on approaches to working with students on written drafts and addressing the needs of non-native speakers.
TUTR 10C — Tutoring as a Supplemental Instructor  1 Unit  Degree Applicable
(May be taken for option of letter grade or Pass/No Pass)
18 hours lecture
Tutoring as a Supplemental Instructor with an emphasis on tutoring in the classroom and in small groups under the supervision of a designated instructor.

TUTR 10D — Tutoring in Mathematics  1 Unit  Not Degree Applicable
(May be taken for option of letter grade or Pass/No Pass)
18 hours lecture
Prerequisite: MATH 71 or higher
Tutoring in mathematics with an emphasis on strategies to promote active learning using manipulatives and dealing with specific obstacles in developmental algebra.

TUTR 10R — Tutoring in Reading  1 Unit  Not Degree Applicable
(May be taken for option of letter grade or Pass/No Pass)
18 hours lecture
Advisory: Eligibility for READ 100
Application of strategic reading processes and approaches to reading tutoring. Prepares students to become tutors for reading.

WELD 30 — Metal Sculpture  2 Units  Degree Applicable, CSU
(May be taken for option of letter grade or Pass/No Pass)
18 hours lecture
54 hours lab
Welding processes used in the metal sculpting industry to create three-dimensional art forms. Covers design, pre-construction analysis, and cost estimates for projects. Includes use of equipment for oxyfuel welding, gas metal arc welding (GMAW), gas tungsten arc welding (GTAW), shielded metal arc welding (SMAW), and flux-cored arc welding (FCAW). Includes demonstrations and exercises in welding as it relates to the art industry.

WELD 40 — Introduction to Welding  2 Units  Degree Applicable, CSU
18 hours lecture
54 hours lab
Fundamentals of welding processes related to the areas of fabrication, construction, machine tool, aerospace and the transportation industries.

WELD 50 — Oxyacetylene Welding  2 Units  Degree Applicable
18 hours lecture
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  Degree Applicable
18 hours lecture
54 hours lab
Advisory: WELD 50
Electric arc welding, weld symbols, standard electrode and alloy electrode selection, American Welding Society’s (AWS) procedure for certification.

WELD 53A — Welding Metallurgy  3 Units  Degree Applicable, CSU
54 hours lecture
Designed for students seeking a career in welding and welding inspection. Covers structure of matter, chemical, physical, and mechanical properties of metals, principles of alloying, solid state diffusion, plastic deformation, and heat treatment.

WELD 60 — Print Reading and Computations for Welders  3 Units  Degree Applicable
54 hours lecture
Reading prints and performing computations for welding fabrication operations. Interpreting and visualizing prints, title blocks, welding symbols, specifications, notes, and bills of materials. Computations necessary to calculate materials, costs, sizes, and fractional, decimal and metric conversions.

WELD 70A — Beginning Arc Welding  3 Units  Degree Applicable
18 hours lecture
108 hours lab
Advisory: WELD 70A taken prior
Develops manipulative skills and techniques for Shielded Metal Arc (SMAW) and Flux Cored Arc (FCAW) welding processes in the flat and horizontal positions using AC and DC welding currents on carbon steel.

WELD 70B — Intermediate Arc Welding  3 Units  Degree Applicable
18 hours lecture
108 hours lab
Advisory: WELD 70A taken prior
Welding high alloy steel with both Shielded Metal Arc (SMAW) and Flux Core Arc (FCAW) welding processes in the vertical and overhead positions with an introduction to Gas Metal Arc (GMAW) and Gas Tungsten (GTAW) welding.

WELD 70C — Certification for Welders  3 Units  Degree Applicable
18 hours lecture
108 hours lab
Advisory: WELD 70A taken prior
Building construction for the advanced arc welding student. Special emphasis will be placed on welding symbols and the American Welding Society’s (AWS) D1.1 and D1.3.

WELD 80 — Construction Fabrication and Welding  3 Units  Degree Applicable
18 hours lecture
108 hours lab
Advisory: WELD 40, WELD 51, WELD 70A
Theory and practical applications of welding used in industry and construction. Designed to adapt and upgrade skills to industry standards. Includes project models such as ornamental iron gates and fences and material storage components.

WELD 81 — Pipe and Tube Welding  3 Units  Degree Applicable
18 hours lecture
108 hours lab
Advisory: WELD 70B, WELD 70C
Welding in all positions as applied to the pipe industry. Welding processes include shielded metal arc welding (SMAW), gas tungsten arc welding (GTAW), gas metal arc welding (GMAW), flux-cored arc welding (FCAW) using a variety of materials and configurations on subcritical and critical piping and tubing.

WELD 90A — Gas Tungsten Arc Welding  3 Units  Degree Applicable, CSU
(May be taken for option of letter grade or Pass/No Pass)
18 hours lecture
108 hours lab
Advisory: WELD 70B taken prior
Advanced Gas Tungsten Arc Welding (GTAW) or Tungsten inert gas (TIG) of steel, aluminum, corrosion resistant steel (CRES), and exotic metals. All position welds with many surfaces and transitions.

WELD 90B — Semiautomatic Arc Welding Process  3 Units  Degree Applicable, CSU
(May be taken for option of letter grade or Pass/No Pass)
18 hours lecture
108 hours lab
Advisory: WELD 70B taken prior
Semiautomatic Welding Processes including Gas Metal Arc Welding (GMAW), Flux Cored Arc Welding (FCAW), Submerged Arc Welding (SAW) with solid and tubular wires with and without gas shielding. All position welds with many varying thickness will be covered.
WELD 91 — Automotive Welding, Cutting and Modification
1 Unit
Degree Applicable
(May be taken for option of letter grade or Pass/No Pass)
18 hours lecture
Corequisite: WELD 91L
Advisory: WELD 70B taken prior
Welding and cutting metals used in the automotive industry. Gas Metal Arc (GMAW/MIG), Gas Tungsten Arc (GTAW/TIG), Plasma Arc Cutting (PAC), and Oxy-fuel Cutting (OFC) welding will be covered.

WELD 91L — Automotive Welding, Cutting and Modification Lab
2 Units
Degree Applicable
(May be taken for option of letter grade or Pass/No Pass)
108 hours lab
Corequisite: WELD 91 (may have been taken previously)
Advisory: WELD 70B
Practical lab applications for sheet metal forming, metal inert gas (MIG), tungsten inert gas (TIG), resistance spot (RSW), and Oxy-fuel welding, plasma arc cutting (PAC) and Oxy-fuel cutting. Includes design, fabrication and assembly of automotive suspension and chassis components.

WELD 96 — Work Experience in Welding
1 to 4 Units
Degree Applicable
(May be taken for Pass/No Pass only)
75 to 300 hours lab
Prerequisite: Compliance with work experience regulations as designated in the college catalog
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.
SECTION ELEVEN

Continuing Education

Committed to Student Success
CONTINUING EDUCATION
(ADULT EDUCATION) COURSES
Noncredit courses are designed to meet the 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 defined categorically under the California Education Code, Section 84711, whereby state funding is authorized for specific categories. Categories currently provided by Mt. SAC noncredit include: Basic Skills (including tutoring), English as a Second Language, Citizenship, Programs for the Handicapped, Vocational Courses, Programs for the Older Adult, and additional courses qualified for adult education curricula.

Student Services
Admissions and Registration
For Continuing Education (noncredit) and Community Services (fee-based) offerings, admission and registration is completed using a registration card. However, enrollment in ESL and/or Adult Basic Education and Health Career 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.

Assessment
Adult Basic Education 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, and career goals. For more information, contact (909) 274-4845.

ESL students must be assessed prior to enrollment. Placement testing is offered every Thursday, year-round. Multilingual assistance is available. For more information, contact (909) 274-5235.

Health careers students enrolling in nursing assistant, home support, or phlebotomy programs must meet specific state requirements related to security and physical health. This information on requirements is provided at mandatory orientation meetings. For more information, please call (909) 274-4788.

Orientation
Adult Basic Education and ESL students must attend an orientation session prior to registration. Orientation sessions are generally offered immediately after assessment. Health career orientations are scheduled prior to the start of each cohort.

Counseling and Advisement
Educational advisement services are available throughout the semester through the Adult Basic Education Center. To schedule an individual appointment, students should call the Adult Basic Education Center, (909) 274-4845.

The Adult Basic Education and ESL departments provide counselors and educational advisors to serve their students. Assistance to all non-credit 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. Prices for fee-based community courses vary. In addition, all students who park on the Mt. San Antonio College campus must have a valid, current parking permit. Student parking permits may be purchased at the Bursar’s Office. One-day parking permits may be purchased at various parking lots on campus. See campus map for details. Books and supplies needed for a class are the responsibility of the student unless specifically noted as provided by a material fee.

Vocational Programs
The Division offers courses and certificates in vocational and health career areas. Additionally, many credit vocational classes offer a minimum number of seats available to Continuing Education students for noncredit. Students may enroll in these classes in accordance with procedures outlined in the Continuing Education class schedule. Students will not receive college credit. However, students enrolled in these classes who wish to receive a certificate of completion are expected to complete all assignments including tests, quizzes, projects and examinations. (A list of Noncredit Certificate Programs is provided beginning on page 217 of this catalog.)

Students wishing to complete a noncredit certificate program in one of the vocational areas of study must apply to the Continuing Education Division office, Building 40, room 104. For further information, please call (909) 274-4220.

Adult Basic Education
The Adult Basic Education 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
- 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)
- Armed Services Vocational Aptitude Battery (ASVAB) Preparation
- Support Services to EDD and WIA students

- High School and Career Counseling; Educational Advising
- Computer Literacy and Keyboarding Classes
- In-Home Support Services Training

For more information on Adult Basic Education programs, contact (909) 274-4845.

English as a Second Language
ESL classes are provided for English language learners at all levels of proficiency, from low literacy to advanced, transitioning to credit. Classes and services include:

- Assessment for level placement (Pre-Level 1 – Level 6)
- Core level classes focusing on integrated skills (grammar, listening, speaking, reading and writing)
- Skill-focused classes (Speaking A-C, Writing A-C)
- Specialized courses (TOEFL preparation, Citizenship preparation)
- Academic and/or vocational transition program (VESL Career Paths)
- Contract ESL customized for the workplace
- Career guidance and counseling

For more information on ESL programs located in the Language Center, Building 66, contact (909) 274-5235.

Language Learning Center
Mt. San Antonio College’s Language Learning Center (LLC) provides faculty guided, as well as independent, learning opportunities for ESL, AMLA, Arabic, Chinese, French, German, Italian, Japanese, Spanish and Sign Language. Located in the Learning Technology Center, Building 6, room 264, the LLC serves both credit and noncredit students learning a language. Users of the LLC may register year-round. Offerings include:

- Interactive language software in all supported languages
- DVD’s, videos, audio recordings
- Pronunciation software
- Computer Aided Testing (CATS) for the FFA and other licensing boards

For more information on the LLC, contact (909) 274-4580.

Health Careers Resource Center (HCRC)
The Center provides the resources to increase student knowledge base, to learn new skills and to reinforce previously learned skills. Resources are provided to Mt. SAC credit and noncredit health career students. The HCRC provides a state-of-the-art learning lab environment to:

- develop new health related skills/knowledge
- update prior or current knowledge
- participate in simulated clinical activities which will promote success in the health care industry

The Center is open to current Mt. SAC credit and noncredit health career students only.

Some of the campus programs/departments actively utilizing the center include:
Continuing Education

Technology and Health Division
- Medical Services – EMT, Paramedic
- Mental Health Technology
- Associate Degree Nursing
- Radiologic Technology
- Respiratory Therapy

Continuing Education Division
- Long-Term Certified Nursing Assistant (C.N. A.)
- IV Therapy
- Home Health Aide
- In-Home Support Services
- Phlebotomy Technician

Education for Older Adults
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 health, and vocational areas, and are conducted at various senior and community centers and residential facilities throughout the Mt. San Antonio College District.

Mountie Volunteer Program (MVP)
Partnering with the Retired Senior Volunteer Program (RSVP), the MVP Program coordinates and provides volunteer opportunities for participants, and 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 Education for Older Adults program.

For more information on Education for Older Adults, please call (909) 274-4192.

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 Safety and Traffic School)
- Farm Tours
- Wildlife Sanctuary Tours
- Study Skills Laboratory for Disabled Students Programs and Services

For more information regarding Continuing Education Services and Programs, contact (909) 274-4220.

*Note: Although courses are designed for the older adult, anyone 18 years of age and older may enroll.

NONCREDIT LIST OF CERTIFICATES

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Continuing Education

NONCREDIT CERTIFICATES OF COMPETENCY

Noncredit Certificates of Competency represent sequences of courses in Basic Skills, Career Development, English as a Second Language or Secondary Education, which allow the student to develop individual competencies based on their personal educational goals and objectives. Each certificate is unique, but all provide the student an opportunity to gain skills necessary to advance in their careers, transition into a new career or prepare for future advanced academic studies and training.

Students are encouraged to gain more information by calling the College telephone number listed in each of the four specific Certificates of Competency that follow.

CERTIFICATES OF COMPETENCY

Adult High School Diploma
Basic Career Readiness
Basic Skills
Career Development
English as a Second Language
ESL – Beginning Level
ESL – Intermediate Level
ESL – Advanced Level
GED Preparation

Adult High School Diploma
#31598
The High School Program provides all courses needed to satisfy requirements for a high school diploma. Students earning a high school diploma increase future employment and educational opportunities, including college and training programs. Completion of these courses will provide the student with a high school diploma. For more information, please call (909) 274-4845.

Certificate Requirements:
Course ID  Course Title
BSHS CHEM  High School Chemistry
BSHS CHN1  High School Chinese 1
BSHS CIV  High School Civics/ American Government
BSHS CPTC  High School Computer Technology
BSHS DPIR  High School Diploma and Referral
BSHS ECON  High School Economics
BSHS ELEA  High School CAHSEE Prep – English Language Arts
BSHS EEMA  High School CAHSEE Prep – Mathematics
BSHS ENG1  High School English 1
BSHS ENG2  High School English 2
BSHS ENG3  High School English 3
BSHS ENG4  High School English 4
BSHS GEOG  High School Geography
BSHS GEOM  High School Geometry
BSHS HLTH  High School Health
BSHS KEY  High School Typing/Keyboarding
BSHS LSC  High School Life Science
BSHS MUSC  High School Music Appreciation
BSHS PHSC  High School Physical Science
BSHS PLNG  High School Planning and Guidance
BSHS PREA  High School Pre-Algebra
BSHS PSY  High School Psychology
BSHS SSK  High School Study Skills
BSHS SOC  High School Sociology
BSHS SPN1  High School Spanish 1
BSHS SPN2  High School Spanish 2
BSHS USHS  High School United States History
BSHS WHS  High School World History
BSHS WREX  High School Expository Writing
BSHS WRT1  Literature and Writing Fundamentals 1
BSHS WRT2  Literature and Writing Fundamentals 2

Basic Career Readiness
#30805
This certificate provides courses that will improve the entry level basic skills needed for employment. Courses will also offer career development skills including personal career assessment, basic interview skills, and job search techniques that students can apply to current and future employment. Students will increase basic skills in reading comprehension, writing, math and basic computer literacy. Elective courses will provide students with an orientation to college enrollment procedures and assessment of placement tests. Note: Students are required to take all 3 core courses. Elective courses are optional to further prepare the student for career success.

Certificate Requirements:
Required Courses:
Course ID  Course Title
BS ABE01  Career Information and Guidance
BS ABE02  Adult Basic Education
BS LRN06  Personal Computer Applications

Elective Courses:
BS ABE04  Guidance and Orientation to Special Programs
BS ABE05  Career Development

Basic Skills
#24058
The Basic Skills Certificate of Competency provides courses and training in skills that will improve opportunities for students to obtain employment, advance in their careers or prepare for future advanced academic studies. Students will increase basic skills, i.e., reading, writing, math and computer skills, and progress in this sequence based on individual needs. Courses are offered days and evenings to accommodate work and personal schedules. For more information, please call (909) 274-4845.

Certificate Requirements:
Course ID  Course Title
BS ABE01  Career Information and Guidance
BS ABE02  Adult Basic Education
BS ABE03  Adult Basic Education – Leadership Development
BS ABE04  Guidance and Orientation to Special Programs
BS ABE05  Career Development
BS ABE06  Basic Skills Foundation
BS ABE07  Re-Entry Work Skills Needed for Today’s Workforce
BS CNSL5  Career/Life Planning

English as a Second Language
#24054
ESL students are placed within the following sequence of courses according to their English abilities. Students progress through this sequence based on individual need before transferring into credit courses or employment. Supplemental courses in speaking, writing and vocational language will assist their progress through the sequence and may be taken along with level classes as needed.

Courses are offered all year round, including winter and summer intersessions. Classes are offered days, evenings and weekends. For more information, please call (909) 274-5225.

Certificate Requirements:
Course ID  Course Title
ESL PLVL1  ESL – Pre-Level 1
ESL LVL1  ESL – Level 1
ESL – Beginning Level

#30375

ESL students are placed within the following sequence of beginning courses according to their English abilities. Students progress through this sequence based on individual need transitioning into intermediate or advanced courses as needed. Courses are offered all year long, including winter and summer sessions. For more information, please call (909) 275-5235.

Certificate Requirements:

Required Courses:

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<th>Course ID</th>
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<td>ESL LVL4</td>
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Elective Courses:

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<td>ESL Writing B</td>
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<tr>
<td>ESL WRTC</td>
<td>ESL Writing C</td>
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</table>

ESL – Intermediate Level

#30374

ESL students are placed within the following sequence of intermediate courses according to their English abilities. Students progress through this sequence based on individual need transitioning into advanced 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 sessions. Classes are offered days, evenings and weekends. For more information, please call (909) 275-5235.

Certificate Requirements:

Required Courses:

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Elective Courses:

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<td>ESL SPKA</td>
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<td>ESL SPKB</td>
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<td>ESL TOEFL</td>
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<td>ESL LANG2</td>
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ESL – Advanced Level

#30376

ESL students are placed within the following sequence of advanced courses according to their English abilities. Students progress through this sequence based on individual need transitioning 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 sessions. Classes are offered days, evenings and weekends. For more information, please call (909) 275-5235.

Certificate Requirements:

Required Courses:

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Elective Courses:

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GED Preparation

#30778

Improve the academic skills needed for passing the General Education Development (GED) exam. Math, reading, writing, science and social studies. Progress in a sequence based on individual need.

Certificate Requirements:

Course ID | Course Title
---|---
BS GEDMA | GED Preparation: Mathematics
BS GEDRD | GED Preparation: Language Arts, Reading
BS GEDSC | GED Preparation: Science
BS GEDSS | GED Preparation: Social Studies
BS GEDWR | GED Preparation: Science

NONCREDIT VOCATIONAL TRAINING CERTIFICATES OF COMPLETION

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 (COIS), or surveys of employer needs in the Continuing, or state licensing mandates and/or certification. However, if a course needed for certificate completion is not offered in a timely manner, the course may be taken for credit and applied to the noncredit certificate.

What Are Vocational Training Certificates?

Certificates in a variety of vocational programs are available through the Continuing Education Division. Many of these certificate programs mirror those offered through the credit programs of the College, and are frequently used as a requirement for professional advancement. Classes taken are noncredit, and do not generate college units toward a degree.

The Continuing Education Division also offers fee-based Certificate Programs. These include:

- Bookkeeping Preparation
- CPR and First Aid
- Makeup Artistry
- Medical Insurance Billing Specialist
- Phlebotomy Technician
- RN Re-Entry into Practice

Specific certificate content and more information can be found in the Continuing Education Schedule of Classes each semester or contact (909) 274-4220.

How to Finish an Occupational Certificate

In order for students to receive a Certificate of Completion, the student must do the following:

- Register and pay material fees, if required, for desired classes
- Satisfactorily complete coursework, papers and projects, take and pass mid-terms and final with the equivalent of a “C” grade as outlined by each individual course syllabus
- When all courses are completed, submit a request to the Continuing Education Division Office, building 40.

If any courses for a noncredit certificate program have been taken for college credit, students must contact the Continuing Education Division office, (909) 274-4220, for instructions.

Certificate criteria will be verified by Continuing Education Division staff. If all requirements are met, a Certificate of Completion will be prepared and delivered to the student.

Getting Help

For more information regarding occupational training certificates, please call the Division office at (909) 274-4220.

Educational Advisers are available to assist students with Career and Education Planning. During the first week of registration, they are available in the Continuing Education registration area, Building 40. Times will be posted and students served on a first-come, first-served basis. Advisers are also available by appointment during the semester. Please call (909)
Continuing Education

ACCOUNTING

Accounting – Bookkeeping
#24089
The Bookkeeping Certificate provides the student with the basic skills and knowledge for entry-level positions within the clerical/accounting field. Common duties performed in this field are posting transactions to journals/ledgers, accounts receivable, accounts payable, inventory tracking/reporting, bank reconciliation, expense reporting and account analysis. The sequence can be completed in one year, and courses are offered Fall and Spring semesters.

Certificate Requirements:
Course ID  Course Title
VOC BA07  Principles of Accounting – Financial
VOC BA72  Bookkeeping – Accounting
VOC BA75  Using Microcomputers in Financial Accounting
VOC BA76  Using Microcomputers in Managerial Accounting
VOC BA68  Business Mathematics

Accounting – Computerized
#24246
The Computerized Accounting Certificate provides the student with basic accounting skills and knowledge together with additional training in computer applications common to the accounting industry. This certificate program prepares the student for an entry-level position as a computerized accounting clerk. Common duties performed in this field are utilization of accounting software programs for posting transactions to journals/ledgers, accounts receivable, accounts payable, inventory tracking/reporting, bank reconciliation, expense reporting and account analysis.

Certificate Requirements:
Completion of Accounting – Bookkeeping Certificate
PLUS the following courses:
Course ID  Course Title
VOC BA07  Principles of Accounting – Financial
VOC BA72  Bookkeeping – Accounting
VOC BA75  Using Microcomputers in Financial Accounting
VOC BA76  Using Microcomputers in Managerial Accounting
VOC BA68  Business Mathematics

Accounting – Payroll
#24074
The Payroll Certificate combines accounting skills with specialized training in payroll preparing the student for entry-level positions within the payroll segment of accounting. Common duties performed include payroll tax reporting, maintenance of payroll accounting systems and posting payroll transactions to journals/ledgers.

Certificate Requirements:
Completion of Accounting – Bookkeeping Certificate
PLUS the following courses:
Course ID  Course Title
VOC BA07  Principles of Accounting – Financial
VOC BA72  Bookkeeping – Accounting
VOC BA75  Using Microcomputers in Financial Accounting
VOC BA68  Business Mathematics

Floral Design
#24242
This sequence is offered in the evening only on campus and at off-campus locations and can be completed in two years. Students completing all three courses will have skills and knowledge to seek jobs in floral design beyond entry-level positions, i.e., first-line supervision and/or management and Floral Designers.

Certificate Requirements:
Course ID  Course Title
VOC AGR25  Floral Design – 1
VOC AGR26  Floral Design – 2
VOC AGR27  Floral Design – 3

Horse Ranch Management
#24340
This certificate program is designed to give students basic skills on horse ranches and agriculture sales and services.

Certificate Requirements:
Course ID  Course Title
VOC AGRN02  Animal Nutrition
VOC AGRN94  Animal Breeding
VOC AGL16  Horse Production or
VOC AGL18  Horse Ranch Management
VOC AGL19  Horse Hoof Care
VOC AGL96  Animal Sanitation and Disease Control
VOC AGL97  Artificial Insemination of Livestock
Continuing Education

Interior Landscaping
#24342
This certificate is designed to give students basic skills in the design, installation and maintenance of interior plants that are used in residences, offices, hotels, malls, restaurants and other locations.

Certificate Requirements:
Course ID  Course Title
VOC AGR01  Horticultural Science
VOC AGR15  Interior Landscaping
VOC AGR24  Integrated Pest Management
VOC AGR29  Ornamental Plants – Herbaceous
VOC AGR32  Landscaping and Nursery Management
VOC AGR64  Landscape Irrigation – Drip and Low Volume

Landscape and Park Maintenance
#24113
This certificate is designed to give students basic skills in park landscape maintenance. Courses offered prepare students with skills that are appropriate for the maintenance of grounds, property or parks.

Certificate Requirements:
Course ID  Course Title
VOC AGR01  Horticultural Science
VOC AGR13  Landscape Design
VOC AGR51  Tractor and Landscape Equipment Operations
VOC AGR62  Landscape Irrigation – Design and Installation
VOC AGR63  Landscape Irrigation System Management
VOC AGR64  Landscape Irrigation – Drip and Low Volume
VOC AGR71  Landscape Construction Fundamentals

Landscape Equipment Technology
#24111
This certificate is designed to give students basic skills to seek employment in equipment repair, at golf courses, rental yards and small equipment repair shops.

Certificate Requirements:
Course ID  Course Title
VOC AGR52  Hydraulics
VOC AGR53  Small Engine Repair I
VOC AGR55  Diesel Engine Repair
VOC AGR56  Engine Diagnostics
VOC AGR57  Power Train Repair

Landscape Irrigation
#24088
This certificate is designed to give students basic skills in irrigation design, repair installation, water management and troubleshooting.

Certificate Requirements:
Course ID  Course Title
VOC AGR01  Horticultural Science
VOC AGR13  Landscape Design
VOC AGR51  Tractor and Landscape Equipment Operations
VOC AGR62  Landscape Irrigation – Design and Installation
VOC AGR63  Landscape Irrigation System Management
VOC AGR64  Landscape Irrigation – Drip and Low Volume
VOC AGR71  Landscape Construction Fundamentals

Livestock Production Management
#24057
This certificate is designed to give students basic skills in livestock production management for employment opportunities on farms, ranches and agriculture sales and services.

Certificate Requirements:
Course ID  Course Title
VOC AGR01  Horticultural Science
VOC AGR02  Plant Propagation/Greenhouse Management
VOC AGR29  Ornamental Plants – Herbaceous
VOC AGR32  Landscaping and Nursery Management
VOC AGR64  Landscape Irrigation – Drip and Low Volume
VOC AGL14  Swine Production
VOC AGL17  Sheep Production
VOC AGL30  Beef Production
VOC AGL34  Livestock Judging and Selection
VOC AGL97  Artificial Insemination of Livestock

Nursery Production Management
#24209
This certificate is designed to give students basic skills in production and marketing of plants and dry goods in the wholesale and retail nursery industry.

Certificate Requirements:
Course ID  Course Title
VOC AGR01  Horticultural Science
VOC AGR02  Plant Propagation/Greenhouse Management
VOC AGR29  Ornamental Plants – Herbaceous
VOC AGR32  Landscaping and Nursery Management
VOC AGR64  Landscape Irrigation – Drip and Low Volume

Park Management
#24374
This certificate program is designed to give students skills required for entry level positions in park management.

Certificate Requirements:
Course ID  Course Title
VOC AGR04  Park Management
VOC AGR05  Park Facilities
VOC AGR51  Tractor and Landscape Equipment Operations
VOC AGR62  Landscape Irrigation – Design and Installation
VOC AGR63  Landscape Irrigation System Management
VOC AGR75  Urban Arboriculture

Pet Science
#24172
This certificate program is designed to give students basic skills in production and marketing of pets at the wholesale and retail level.

Certificate Requirements:
Course ID  Course Title
VOC AGN01  Animal Science
VOC AGN02  Animal Nutrition
VOC AGN51  Animal Handling and Restraint
VOC AGN94  Animal Breeding
VOC AGL96  Animal Sanitation and Disease Control
VOC AGR70  Pet Shop Management
VOC AGR71  Canine Management
VOC AGR72  Feline Management
VOC AGR73  Tropical and Coldwater Fish Management
VOC AGR74  Reptile Management
VOC AGR76  Aviculture – Cage and Aviary Birds
VOC BM66  Small Business Management
### Sports Turf Management
**#24075**
This certificate is designed to provide skills required for students interested in employment at golf courses, race tracks, athletic fields and stadiums, and other high-use turf areas.

**Certificate Requirements:**
- **Course ID** | **Course Title**
  - VOC AGR24  Integrated Pest Management
  - VOC AGR39  Turf Grass Production and Management
  - VOC AGR40  Sports Turf Management
  - VOC AGR50  Soil Science and Management
  - VOC AGR62  Landscape Irrigation – Design and Installation
  - VOC AGR63  Landscape Irrigation – Systems Management

### Tree Care and Maintenance
**#24215**
This certificate is designed to give students basic skills in the repair and maintenance of trees.

**Certificate Requirements:**
- **Course ID** | **Course Title**
  - VOC AGR01  Horticultural Science
  - VOC AGR24  Integrated Pest Management
  - VOC AGR30  Ornamental Plants – Trees and Woody Shrubs
  - VOC AGR50  Soil Science and Management
  - VOC AGR51  Tractor and Landscape Equipment Operations
  - VOC AGR75  Urban Arboriculture

### Business Management

#### Business Management – Level 1
**#24108**
The Business Management – Level 1 Certificate is designed to introduce the student to the role of management in business. 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 1 certificate students may qualify for an entry-level management position in California’s diverse economy.

**Certificate Requirements:**
- **Course ID** | **Course Title**
  - VOC BM20  Principles of Business
  - VOC BM61  Business Organization and Management
  - VOC BS36  Principles of Marketing

#### Business Management – Level 2
**#24110**
This certificate builds upon the Level 1 Certificate to provide students with proven business tools that will enhance their management careers. Students will be exposed to projects and business simulations that will lead to measurable successes. Business presentations, business planning, team building, conflict resolution, and computer use are core skills developed in this certificate.

**Certificate Requirements:**
- **Course ID** | **Course Title**
  - VOC BM20  Principles of Business
  - VOC BM61  Business Organization and Management
  - VOC BS36  Principles of Marketing

#### Business Management – Level 3
**#24249**
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. Students will have a strategic perspective of production, marketing, accounting, international business and human resources. Completion of the Business: Management – Level 3 Certificate will lead to new opportunities and provide students with a solid foundation upon which to build a management career.

**Certificate Requirements:**
- **Course ID** | **Course Title**
  - VOC BM20  Principles of Business
  - VOC BM61  Business Organization and Management
  - VOC BS36  Principles of Marketing
  - VOC BM60  Human Relations in Business
  - VOC BM62  Human Resource Management
  - VOC CSB15  Microcomputer Applications
  - VOC BA07  Principles of Accounting – Financial
  - VOC BM10  Principles of Continuous Quality Improvement
  - VOC BM51  Principles of International Business

### Human Resource Management
**#24320**
This introductory certificate exposes students to the business world and the role of human resources. Students become familiar with various approaches to business organization and the strategic nature of human resources. This certificate may aid in the student’s search for an entry-level job in the business world.

**Certificate Requirements:**
- **Course ID** | **Course Title**
  - VOC BM20  Principles of Business
  - VOC BM61  Business Organization and Management
  - VOC BM62  Human Resource Management

### International Business

#### International Business – Level 1
**#24107**
This specialized business certificate is intended to prepare the student to work in the unique and dynamic environment of international business. The program also prepares the student as a business management generalist for companies conducting international trade. This program will afford career opportunities for entry-level employment in international sales and marketing.

**Certificate Requirements:**
- **Course ID** | **Course Title**
  - VOC BM20  Principles of Business
  - VOC BM51  Principles of International Business
  - VOC BS36  Principles of Marketing

#### International Business – Level 2
**#24431**
In the International Business – Level 2 Certificate, the student will learn methods and approaches to managing the complexities of doing business in an international environment. Students acquire both theoretical knowledge and practical skills related to managing and marketing within the global arena. Students active in the workforce will acquire new skills that are highly desirable in a fast-paced dynamic global environment, with an emphasis on the small business perspective.

**Certificate Requirements:**
- **Course ID** | **Course Title**
  - VOC BM20  Principles of Business
  - VOC BM51  Principles of International Business
  - VOC BS36  Principles of Marketing
  - VOC BM61  Business Organization and Management
  - VOC BM66  Small Business Management
Retail Management – Level 1 #24418
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.

Certificate Requirements:
Course ID  Course Title
VOC B025  Business Communications
VOC CSB15  Microcomputer Applications
VOC FSH62  Retail Store Management and Merchandising
VOC BS50  Retail Management and Merchandising

Retail Management – Level 2 #24359
This intermediate certificate builds upon the Level 1 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.

Certificate Requirements:
Course ID  Course Title
VOC B025  Business Communications
VOC CSB15  Microcomputer Applications
VOC FSH62  Retail Store Management and Merchandising
VOC BS50  Retail Management and Merchandising
VOC B11  Fundamentals of Accounting
VOC BM61  Business Organization and Management
VOC BM62  Human Resource Management
VOC BS36  Principles of Marketing
VOC BA07  Principles of Accounting – Financial
VOC BM60  Human Relations in Business
VOC B026  Oral Communications for Business

Small Business Management – Level 1 #24035
Small business has been described as the engine of change within the economy. The Business: Small Business Management – Level 1 Certificate exposes students to the fundamentals of managing and planning a small business. Upon completion students may qualify for an entry-level management position in a small business. Entrepreneurs may use this certificate as a means to plan and develop new business ventures.

Certificate Requirements:
Course ID  Course Title
VOC BM20  Principles of Business
VOC BM66  Small Business Management
VOC BS36  Principles of Marketing

Small Business Management – Level 2 #24034
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. Completion of this certificate will lead to new career opportunities for those currently employed in the small business arena.

Certificate Requirements:
Course ID  Course Title
VOC BM20  Principles of Business
VOC BM66  Small Business Management
VOC BS36  Principles of Marketing
VOC BM60  Human Relations in Business
VOC BM61  Business Organization and Management
VOC BM62  Business Resource Management

Small Business Management – Level 3 #24034
Upon completion of the Small Business Management – Level 3 certificate, students will have built a foundation of management strategies and practices which will enable them to prosper in an ever-changing small business environment. Computer skills applicable to small business will be developed. Students will have a strategic perspective across all small business functions. Students will acquire the skills and abilities necessary to build a successful business career.

Certificate Requirements:
Course ID  Course Title
VOC BM20  Principles of Business
VOC BM66  Small Business Management
VOC BS36  Principles of Marketing
VOC BM60  Human Relations in Business
VOC BM61  Business Organization and Management
VOC BM62  Business Resource Management
VOC BA07  Principles of Accounting – Financial

Computer and Networking Technology – Level I #24059
This certificate is intended to prepare students to enter the computer and networking fields as service technicians with foundations in basic electricity and electronics, operating systems, computer service and troubleshooting, and preparation for the A+ certification examination.

Certificate Requirements:
Course ID  Course Title
VOC CNT50  PC Servicing
VOC CNT52  PC Operating Systems
VOC CNT54  PC Troubleshooting
VOC CNT60  A+ Certification Preparation
VOC EL11  Technical Applications in Microcomputers
VOC CSB15  Microcomputer Applications

Computer Systems Technology #24284
The Computer Systems Technology curriculum encompasses advanced coursework in computer systems circuitry, including microcontrollers and microprocessors.

Certificate Requirements:
Course ID  Course Title
VOC EL11  Technical Applications in Microcomputers
VOC EL12  Computer Simulation and Troubleshooting
VOC EL50A  Electronic Circuits – Direct Current (DC)
VOC EL50B  Electronic Circuits (AC)
VOC EL56  Digital Electronics
VOC EL61  Electronics Assembly and Fabrication
VOC EL74  Microcontroller Systems
VOC TCH60  Customer Relations for the Technician
### Electronic Assembly and Fabrication

**Course ID** #24162

This certificate prepares students to enter the electronics field as assembly and fabrication technicians. The program provides a series of courses to meet the needs of industry in assembly, soldering/de-soldering skills and fabrication for both through-hole and surface mount devices (SMD), including skills for various types of cabling and connections.

**Certificate Requirements:**
- **Course ID** VOC EL50A: Electronic Circuits - Direct Current (DC)
- **Course ID** VOC EL50B: Electronic Circuits (AC)
- **Course ID** VOC EST50: Electrical Fundamentals for Cable Installations
- **Course ID** VOC EL61: Electronic Assembly and Fabrication
- **Course ID** VOC EL62: Advanced Surface Mount Assembly and Rework

### Electronic Systems Technology – Level 2

**Course ID** #24073

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

**Certificate Requirements:**
- **Course ID** VOC EL11: Technical Applications in Microcomputers
- **Course ID** VOC EL12: Computer Simulation/Troubleshooting
- **Course ID** VOC EL50A: Electronic Circuits - Direct Current (DC)
- **Course ID** VOC EL50B: Electronic Circuits (AC)
- **Course ID** VOC EL51: Semiconductor Devices and Circuits
- **Course ID** VOC EL56: Digital Electronics
- **Course ID** VOC EL61: Electronics Assembly and Fabrication
- **Course ID** VOC TCH60: Customer Relations for the Technician

### Electronic Systems Technology – Level 1

**Course ID** #24363

This certificate 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 theater installer, consumer electronics service technician and security system installer. Level 1 certification develops skills in electrical fundamentals, fabrication techniques, cabling and wiring standards for voice, video and data, and basic computer skills in word processing, spreadsheets, database and the Internet.

**Certificate Requirements:**
- **Course ID** VOC EST50: Electrical Fundamentals for Cable Installations
- **Course ID** VOC EST52: Fabrication Techniques for Cable Installations
- **Course ID** VOC EST54: Cabling and Wiring Standards
- **Course ID** VOC CSB15: Microcomputer Applications

### Electronics Technology - Engineering Technology

**Course ID** #24171

This certificate program prepares individuals either for initial employment or for enhancement of existing skills in the electronics field, or for transfer into B.S. programs in Electronics Technology or Industrial Technology. Students are exposed to core topics such as components and circuits as well as coursework in advanced areas including microcontrollers and interfacing, communications, and industrial electronic controls.

**Certificate Requirements:**
- **Course ID** VOC EL11: Technical Applications in Microcomputers
- **Course ID** VOC EL12: Computer Simulation/ Troubleshooting
- **Course ID** VOC EL50A: Electronic Circuits - Direct Current (DC)
- **Course ID** VOC EL50B: Electronic Circuits (AC)
- **Course ID** VOC EL51: Semiconductor Devices and Circuits
- **Course ID** VOC EL56: Digital Electronics
- **Course ID** VOC EL54A: Industrial Electronics
- **Course ID** VOC EL54B: Industrial Electronic Systems

### Electronics Communications

**Course ID** #24210

In addition to courses in electronics fundamentals, the Electronics Communications Certificate program encompasses the study of both wire- and wireless forms of analog and digital communications systems. Topics include amplitude and frequency modulation, multiplexing, antennas, transmission lines, and radio-wave propagation, as well as microwave systems, including radar and satellite operations.

**Certificate Requirements:**
- **Course ID** VOC EL11: Technical Applications in Microcomputers
- **Course ID** VOC EL50A: Electronic Circuits - Direct Current (DC)
- **Course ID** VOC EL50B: Electronic Circuits (AC)
- **Course ID** VOC EL51: Semiconductor Devices and Circuits
- **Course ID** VOC EL56: Digital Electronics
- **Course ID** VOC EL55: Microwave Communications
- **Course ID** VOC EL54A: Industrial Electronics
- **Course ID** VOC EL54B: Industrial Electronic Systems
Electronics: Industrial Systems
#24319
In addition to courses in electronics fundamentals, the Industrial Systems curriculum encompasses advanced coursework in industrial electronics, including electronic devices for industrial and motor controls. The curriculum culminates in the study of programmable logic controls (PLCs) using the Allen-Bradley series of PLCs running Windows ladder logic software.

Certificate Requirements:
Course ID  Course Title
VOC EL11  Technical Applications in Microcomputers
VOC EL12  Computer Simulation and Troubleshooting
VOC EL50A  Electronic Circuits - Direct Current (DC)
VOC EL50B  Electronic Circuits (AC)
VOC EL51  Semiconductor Devices and Circuits
VOC EL54A  Industrial Electronics
VOC EL54B  Industrial Electronic Systems
VOC EL56  Digital Electronics
VOC EL61  Electronics Assembly and Fabrication
VOC TCH60  Customer Relations for the Technician

Health Careers
Certified Nursing and Acute Care
Nursing Assistant
#24400
This certificate program will prepare participants to work in both long-term and acute care facilities thus providing entry level, diverse, work opportunities in the ever growing health care field. For those planning on entering LVN or RN programs, course content may increase chances for successful admission and completion of nursing program curriculum.

These courses meet the requirements for California state certification as a CNA. The program incorporates processing of the state application and administration of the NATAP test with same day official test results for the written and manual skills examination. Verification of successful passing of the NATAP test permits immediate eligibility for employment.

All coursework can be completed within 11 weeks. Offered in Fall or Spring semesters. Participants must:
• provide their own transportation and be at least 16 years of age or have a work permit
• be able to meet expenses and responsibilities incurred as part of this program.
• demonstrate proficient English/ESL verbal and written communication skills to take written exams, communicate with clients and maintain a safe clinical environment

Certificate Requirements:
Course ID  Course Title
VOC HTH01  Certified Nursing Assistant
VOC HTH04  Acute Care Nursing Assistant
VOC HTH05  Health Careers Resource Center Certified Nurse Assistant (CNA) Course Completion
Only VOC HTH01
VOC HTH05 is offered for “course completion only” during the Winter and Summer Intersessions. This course provides for employment in long term care only.

For further information, please contact the Health Careers Resource Center, (909) 274-4788.

Interior Design – Level 1
#31012
The primary purpose of this certificate is to prepare students with a broad overview and solid foundation in the area of interior design and related fields. This certificate may lead to new opportunities and provide students with the groundwork upon which to build a career.

Certificate Requirements:
Course ID  Course Title
VOC ID10  Introduction to Interior Design
VOC ID12  Materials and Products for Interior Design
VOC ID14  History of Furniture and Decorative Arts

All coursework can be completed within 11 weeks. Offered in Fall or Spring semesters

MANUFACTURING TECHNOLOGY
MasterCAM
#24212
This certificate provides a strong background in MasterCAM 2-D and 3-D, and SolidWorks software packages along with the necessary machine shop theory and practice to input sound functional data into the CAM system.

Certificate Requirements:
Course ID  Course Title
VOC MF11  Manufacturing Processes I
VOC MF38  MasterCAM I
VOC MF38B  Advanced MasterCAM
VOC MF85  Manual CNC Operations

Office Computer Applications
#24410
This certificate in Office Computer Applications is customized to meet the needs of the entry-level adult student or professional, who is seeking to acquire an array of office computer skills required in a computerized office environment.

Certificate Requirements:
Course ID  Course Title
VOC CPBC1  Basic Computing – Level 1
VOC CPBC2  Basic Computing – Level 2
VOC CPBC3  Basic Computing – Level 3
VOC CPNET  Internet Research – An Introduction
VOC CPCC  Creative Computing

Photography - Level I
#24245
This certificate program is designed to prepare students for employment in the field of photography and offers the core skills necessary as an entry-level Photography Assistant.

Certificate Requirements:
Course ID  Course Title
VOC GRP10  Photoshop Imagery
VOC PH010  Basic Digital and Film Photography
VOC PH011  Intermediate Photography
VOC PH016  Fashion Photography
VOC PH018  Portraiture and Wedding Photography
VOC PH020  Color Photography

Recommended Electives: The Photography faculty recommends that you complement your studies with selected elective courses listed below. You should meet with a professor of Computer Graphics Design/Photography to help you determine which electives would best suit your career plans.
VOC PH01 Laboratory Studies: Black and White Photography
VOC PH015 History of Photography
### Continuing Education

#### Welding Technologies

**Licensed Welder**

**#24223**

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

**Certificate Requirements:**

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<td>VOC WL70C</td>
<td>Certification for Welding</td>
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<tr>
<td>VOC WL80</td>
<td>Fabrication and Construction</td>
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<td>Welding</td>
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<tr>
<td>VOC WL81</td>
<td>Pipe and Tube Welding</td>
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**Welding: Automotive Welding, Cutting & Modification**

**#24406**

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

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<td>VOC WL81</td>
<td>Pipe and Tube Welding</td>
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<td>VOC WL91</td>
<td>Automotive Welding, Cutting</td>
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<td>and Modification</td>
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**Welding: Gas Tungsten Arc, Welding**

**#24380**

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

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**Welding: Semiautomatic Arc, Welding**

**#24379**

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

**Certificate Requirements:**

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**Welding: Metal Arc, Welding**

**#24378**

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

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**Welding: Metal Arc, Welding**

**#24377**

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### BS ASVAB — ASVAB Preparation (Armed Services Vocational Aptitude Battery)
- General knowledge in five of the ten areas of the Armed Services Vocational Aptitude Battery (ASVAB) exam; general science, word knowledge, paragraph comprehension, arithmetic reasoning, and math knowledge, test preparation skills.

### BS CNSLS — Career/Life Planning

### BS GEDMA — GED Preparation: Mathematics
- Improve mathematical knowledge and skills in preparation for the Math section of the General Education Development (GED) exam. Test areas include number operations, geometry, statistics and algebra.

### BS GEDRD — GED Preparation: Language Arts, Reading
- Improve comprehension and reading knowledge and skills in preparation for the Language Arts: Reading section of the General Education Development (GED) exam. Poetry, fiction, nonfiction, drama, art reviews and workplace documents.

### BS GEDSC — GED Preparation: Science
- Improve scientific knowledge and skills in preparation for the Science section of the General Education Development (GED) exam. Test areas include physics, chemistry, life science, earth science and astronomy.

### BS GEDSS — GED Preparation: Social Studies
- Improve historical knowledge in preparation for the social studies section of the General Education Development (GED) exam. Test areas include United States history, world history, geography, government and economics.

### BSHS ALG1 — High School Algebra 1
- Key components of the first year of algebra. Use of symbolic reasoning and calculations with symbols as applied to solving and graphing equations, functions and inequalities. Supports progress toward a high school diploma or equivalent. From 1-10 high school credits can be earned in 15-hour modules.

### BSHS ALG2 — High School Algebra 2
- Key components of second year algebra. Expands on basic algebra and geometry concepts, including solutions of quadratic equation and functions, equations and inequalities, fractional exponents and exponential functions, polynomials, real numbers, rational and irrational expressions, logarithmic functions, computations, permutations and probabilities, statistics, series and sequences, and the complex number system. Supports progress toward a high school diploma or equivalent. From 1-10 high school credits can be earned in 15-hour modules.

### BSHS ART1 — High School Art & Creative Expression
- Artistic perception, creative expression, and aesthetic value of art for high school students. Historical and cultural influences. Original productions through design and drawing using a variety of media. Supports progress toward a high school diploma or equivalent. From 1-10 high school credits can be earned in 15-hour modules.

### BSHS ART2 — High School - Art 2
- Artistic perception, creative expression, and aesthetic valuing through experiences with art for high school students. Historical and cultural context of the visual arts. Original productions in design and drawing using a variety of media. Supports progress toward a high school diploma or equivalent. From 1-10 high school credits can be earned in 15-hour modules.

### BSHS BIO — High School Biology
- Fundamental areas of life science for high school students. Characteristics of living things, simple organisms, plants, animals, human biology, cell biology, physiology, genetics, heredity, adaptation, evolution and ecology. Supports progress toward a high school diploma or equivalent. From 1-10 high school credits can be earned in 15-hour modules.

### BSHS CHEM — High School Chemistry
- Chemistry for high school students. Includes atomic and molecular structure, chemical bonds, conservation of matter and stoichiometry, bases and their properties, acids and bases, solutions, chemical thermodynamics, reaction rates, chemical equilibrium, organic chemistry and biochemistry and nuclear processes. Supports progress toward a high school diploma or equivalent. From 1-10 high school credits can be earned in 15-hour modules.

### BSHS CHN1 — High School - Chinese 1
- Fundamentals of pronunciation and grammar, practical vocabulary; understand, read, write and speak basic Chinese. Geography, customs and culture of Chinese-speaking countries for high school students. Supports progress toward a high school diploma or equivalent. From 1-10 high school credits can be earned in 15-hour modules.
### Continuing Education

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<td>BSHS CIV</td>
<td>High School Civics/American Government</td>
<td>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. Supports progress toward a high school diploma or equivalent. From 1-10 high school credits can be earned in 15-hour modules.</td>
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<tr>
<td>BSHS CPTC</td>
<td>High School Computer Technology</td>
<td>Fundamental computer concepts, keyboarding skills, Internet applications, word processing, multi-media presentations, spreadsheets and electronic publishing. Application of technology in the educational and workplace settings. Includes file-management and appropriate technology use in a network environment as well as copyright law and safety. Supports progress toward a high school diploma or equivalent. From 1-10 high school credits can be earned in 15-hour modules.</td>
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<td>BSHS EASC</td>
<td>High School Earth Science</td>
<td>General economic principles and practices including: scarcity and choice, opportunity and trade-offs, economic systems, institutions and incentives, markets and prices, supply and demand, competition, income distribution, monetary policy, international economics and government roles. Supports progress toward a high school diploma or equivalent. From 1-10 high school credits can be earned in 15-hour modules.</td>
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<tr>
<td>BSHS ECON</td>
<td>High School - Economics</td>
<td>General economic practices including: scarcity and choice, opportunity and trade-offs, economic systems, institutions and incentives, markets and prices, supply and demand, competition, income distribution, monetary policy, international economics and government roles. Supports progress toward a high school diploma or equivalent. From 1-10 high school credits can be earned in 15-hour modules.</td>
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<tr>
<td>BSHS EELA</td>
<td>CAHSEE Prep: English Language Arts</td>
<td>Examination preparation for the reading and writing portions of the California High School Exit Exam. Supports progress toward a high school diploma or equivalent.</td>
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<tr>
<td>BSHS EEMA</td>
<td>CAHSEE Math Prep</td>
<td>Preparation for the mathematics portion of the California High School Exit Exam. Supports progress toward a high school diploma or equivalent.</td>
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<td>BSHS ENG1</td>
<td>High School - English 1</td>
<td>Foundations of literature using a variety of genres and theme experiences; analysis of works based on themes. Writing, editing and critical thinking skills; vocabulary, concept development, grammar and writing mechanics. Supports progress towards a high school diploma or equivalent. From 1-10 high school credits can be earned in 15-hour modules.</td>
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<tr>
<td>BSHS ENG2</td>
<td>High School English 2</td>
<td>Expands on the foundations of literature from English 1 using a variety of genres and themes. Improves skills in reading comprehension, literary analysis, mechanics of writing and oral presentations. Supports progress toward a high school diploma or equivalent. From 1-10 high school credits can be earned in 15-hour modules.</td>
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<tr>
<td>BSHS ENG3</td>
<td>High School English 3</td>
<td>Foundations of literature through American literature using the historical approach. Includes social, political, and intellectual trends connected with the following time periods: Pre-Colonial Era, the American Revolution, the New England Renaissance, Slavery and the Civil War, the Frontier Era, the Harlem Renaissance, and the Modern Era. Development of writing and critical thinking skills. Supports progress toward a high school diploma or equivalent. From 1-10 high school credits can be earned in 15-hour modules.</td>
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<tr>
<td>BSHS ENG4</td>
<td>High School English 4</td>
<td>Foundations of literature through British literature using the historical approach. Includes social, political and intellectual trends connected with the following time periods: Anglo-Saxon, Medieval, English Renaissance, Renaissance drama, the early 17th century, the Restoration and the 18th century, the Romantic Era, the Victorian Age, and contemporary British poetry and prose. Development of writing, critical thinking, and the use of literary tools. Supports progress toward a high school diploma or equivalent. From 1-10 high school credits can be earned in 15-hour modules.</td>
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<tr>
<td>BSHS GEOG</td>
<td>High School-Geography</td>
<td>Patterns and processes that have shaped human understanding, use and alteration of earth's surface; spatial concept and landscape analysis to examine human social organization and its environmental consequences and the inter-relationship of natural processes and systems. Methods and tools geographers use. Supports progress toward a high school diploma or equivalent. From 1-10 high school credits can be earned in 15-hour modules.</td>
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<tr>
<td>BSHS GEOM</td>
<td>High School Geometry</td>
<td>Geometric applications and connections. Definitions, constructions, theorems, proofs, area, volume and geometric relationships. Supports progress toward a high school diploma or equivalent. From 1-10 high school credits can be earned in 15-hour modules.</td>
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<td>BSHS HLTH</td>
<td>High School - Health Education</td>
<td>Increases high school students' awareness of health issues, includes healthy behavior vs high-risk behavior; how health issues impact the community and environment. Uses skill-building approach that includes decision-making, role modeling, critical analysis, and goal-setting toward a healthy lifestyle. Supports progress toward a high school diploma or equivalent. From 1-10 high school credits can be earned in 15-hour modules.</td>
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<td>BSHS KEY</td>
<td>High School - Typing/Keyboarding</td>
<td>Develops the skill of keyboarding for high school students. Emphasis will be placed on learning alphabetic and numeric keys by touch using appropriate techniques. Students will build on basic skills to improve speed and accuracy in order to create, format and edit a variety of documents. Supports progress toward a high school diploma or equivalent. From 1-10 high school credits can be earned in 15-hour modules.</td>
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<tr>
<td>BSHS MUSC</td>
<td>High School - Music Appreciation</td>
<td>Historical, cultural and genre-based aesthetic valuing of music for high school students. Vocabulary, interaction of words and music, influence of religion, theater, government and culture on musical style. Supports progress toward a high school diploma or equivalent. From 1-10 high school credits can be earned in 15-hour modules.</td>
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<tr>
<td>BSHS PHSC</td>
<td>High School Physical Science</td>
<td>Overview of chemistry and physics topics. Basics of the periodic table, matter and atoms. Newtonian physics including motion, momentum and forces. Machines, energy, waves, light, electricity and magnetism. Supports progress toward a high school diploma or equivalent. From 1-10 high school credits can be earned in 15-hour modules.</td>
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<tr>
<td>BSHS PLNG</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. Supports progress toward a high school diploma or equivalent. From 1-10 high school credits can be earned in 15-hour modules.</td>
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<tr>
<td>BSHS PREA</td>
<td>High School Pre-Algebra</td>
<td>Preparatory course for first year algebra. Review of basic mathematic skills and the basic principles of algebra. Supports progress toward a high school diploma or equivalent. From 1-10 high school credits can be earned in 15-hour modules.</td>
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BSHS SPN1 — High School Spanish, Conversation and Writing
Fundamentals of Spanish language. Communication about self and immediate environment using simple sentences and phrases. Includes writing and speaking. Cultural connections to geography and customs of Spanish-speaking countries. Supports progress toward a high school diploma or equivalent. From 1-10 high school credits can be earned in 15-hour modules.

BSHS SPN2 — High School Spanish 2
Intermediate Spanish. Culture, listening, speaking, reading and writing. Emphasis on skills needed to communicate in a variety of modes with increased complexity and proficiency. Supports progress toward a high school diploma or equivalent. From 1-10 high school credits can be earned in 15-hour modules.

BSHS PSY — High School Psychology
Methods, facts and theories of the behavior and processes of human beings and animals. 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. Supports progress toward a high school diploma or equivalent. From 1-10 high school credits can be earned in 15-hour modules.

BSHS SOC — High School Sociology
Concepts and theories of social interaction. Theories, characteristics and implications of culture, socialization, society, groups, deviations and control, social stratification, race, gender, age, family, education, politics, religion, sports and change. Supports progress toward a high school diploma or equivalent. From 1-10 high school credits can be earned in 15-hour modules.

BSHS SOC — High School Sociology
Concepts and theories of social interaction. Theories, characteristics and implications of culture, socialization, society, groups, deviations and control, social stratification, race, gender, age, family, education, politics, religion, sports and change. Supports progress toward a high school diploma or equivalent. From 1-10 high school credits can be earned in 15-hour modules.

BSHS WEX — High School Expository Writing
Developing essay writing including introductory paragraphs, body paragraphs and concluding paragraphs in expository, descriptive, narrative and argumentative essays. Supports progress toward a high school diploma or equivalent. From 1-10 high school credits can be earned in 15-hour modules.

BSHS WHS — High School World History
World history from prehistory to the modern era. Major turning points that shaped the modern world, focusing on the late 18th century through the present, including causes and courses of the two world wars. Rise of democratic ideas and the historical roots of current world issues pertaining to international relations, historical, geographic, political, economic and cultural contexts. Supports progress toward a high school diploma or equivalent. From 1-10 high school credits can be earned in 15-hour modules.

BSHS WREX — High School Expository Writing
Developing essay writing including introductory paragraphs, body paragraphs and concluding paragraphs in expository, descriptive, narrative and argumentative essays. Supports progress toward a high school diploma or equivalent. From 1-10 high school credits can be earned in 15-hour modules.

BSHS WRIT2 — Literature and Writing Fundamentals 2
Literary analysis skills across genres including fiction, nonfiction, various genres of literature (novels, short stories, plays, poetry), and informational texts; essay writing skills for academic essays, research papers, and workplace documents. Supports progress toward a high school diploma or equivalent. From 1-10 high school credits can be earned in 15-hour modules per credit.

BSHS WRIT1 — Literature and Writing Fundamentals 1
Reading comprehension and analysis skills across genres including fiction, nonfiction, various genres of literature (novels, short stories, plays, poetry) and informational texts; writing skills including paragraph writing, thesis development, and editing. Supports progress towards a high school diploma or equivalent. From 1-10 high school credits can be earned in 15-hour modules.

BS LRN50 — Learning Support Laboratory
Learning and workplace skills are enhanced by computer use and instruction for students enrolled in or seeking enrollment in a college instructional program.

BS LRN72 — Reading Acceleration
Provides instruction and practice in techniques of reading acceleration and variable reading speeds. Students who repeat will improve reading speed and comprehension rates.

BS LRN81 — Improving Writing
Offers assistance to students who wish to improve prewriting, writing, editing and revising. Provides instruction in content and structure of sentences, paragraphs and essays; emphasizes development in writing through the integration of grammar and critical thinking.

BS LRN76 — Improving Reading Comprehension
Prepares students for reading informational materials. Topics include spelling, reading comprehension, dictionary usage and how to read a textbook.

BS LRN06 — Personal Computer Applications
Increase typing and ten-key speed using computer software. Includes current word processing, spreadsheet, database software, keyboarding techniques, including correct posture; introduction to e-mail and the Internet; time management, decision-making, problem-solving and creative thinking.

BS MTH01 — Developmental Mathematics Concepts and Application
Hands-on activities and practical applications of algebraic principles: elementary geometry, signed numbers, ratio and proportion, factoring, pre-algebra, linear and quadratic equations, complex numbers, graphing, functions, sequences, linear and non-linear inequalities and systems, progressions, and sigma notation.
BS STD80 — Foundations for Academic Success
College success course emphasizing academic achievement that promotes learning through self-awareness, time management, listening, note-taking, oral and written communication, text-taking, memorization and the use of campus resources using a brain-based perspective.

BS WRT2 — Basic Writing Skills Development
Basic Skills Development in Reading and Writing
Enhance basic skills in reading and writing via the use of computer-assisted learning, e-mail and on-line tools.

BS TR01 — All Subject Tutoring
Assistance in basic English and mathematics skills through tutoring and computer-based learning. Tutorial assistance in other subject areas is also available.

BS TR02 — Tutoring Techniques
Explores learning theories and tutoring techniques for tutoring individuals and small groups. Emphasis is placed on encouraging independent learning.

CITIZENSHIP
CITZ NAT — Citizenship for Naturalization
Intermediate and advanced students prepare for the interview for United States citizenship.

DISABLED STUDENTS
DSPS ELL01 — Lifelong Learning for the Special Needs Population
Educational activities for special needs students emphasizing physical, cognitive, social and emotional skill development.

DSPS LRND1 — Clinical Speech Instruction
Designed to accommodate individual and group instruction for adults with speech and/or learning problems. Includes individual evaluation and speech improvement plan. Disorders addressed include phonology, fluency, voice and resonance, hearing impairment, cerebral vascular accident and acquired brain injury. Instruction is not available for students with dialectal problems.

DSPS LRND2 — High Tech Center Tutorial/Assistance Class
Advisory Prerequisite: Students must be referred by a counselor in Disabled Student Programs and Services (DSP&S) in order to register for this class. This class is for students with identified disabilities to utilize adaptive hardware and software in the High Tech Center that will assist them in succeeding in other courses. Through technology provided by the HTC, student will be given support, additional resources, assistance and strategies to succeed in their other classes. This class is designed as a transition or resource class for students eligible or nearing eligibility to advancement into other Mt. SAC courses.

DSPS LRND3 — Adaptive Academic Preparation
Note: Students must see a Brain Injury Specialist in Disabled Student Programs and Services (DSP&S) and have acquired their injury after the age of 12 in order to be evaluated for the Brain Injury Program prior to registration for this class. Designed for students who have been accepted into the Brain Injury Program at Mt. SAC. Includes specialized instruction and the use of computer software to improve cognitive skills (attention, memory, reasoning, etc.) needed for academic and/or vocational goals.

ENGLISH AS A SECOND LANGUAGE
ESL LANG3 — English for Specific Uses (ESL)
Advanced ESL students improve speaking, writing, vocabulary and SCANS competencies related to vocations. Includes critical thinking, customer service, teamwork and autonomous learning strategies.

ESL LV1 — ESL - Level 1
Beginning to low English students build vocabulary, grammar and communication skills.

ESL LVL2 — ESL - Level 2
High beginning English students build upon their base of vocabulary and improve grammar understanding through practice of listening, speaking, reading and writing skills. Students work independently and in groups to develop projects and make presentations that are meaningful to them.

ESL LVL3 — ESL - Level 3
Low intermediate level students improve English communication and grammar through practice of listening, speaking, reading and writing skills. Activities include team projects, presentations and exams in preparation for academic/vocational success and encourage civic participation.

ESL LVL4 — ESL - Level 4
High intermediate level students improve English communication and grammar through practice of listening, speaking, reading and writing skills. Activities include team projects, presentations and exams, in preparation for academic/vocational success and encourage civic participation.

ESL LVL5 — ESL - Level 5
Low advanced level students improve English communication and grammar understanding through practice of listening, speaking, reading and writing skills. Activities include team projects, presentations and exams in preparation for academic/vocational success and encourage civic participation.

ESL LVL6 — ESL - Level 6
High advanced level students improve English communication skills and prepare to transition into academic, vocational programs, or general community classes. Activities include teamwork, projects, presentations and exams to ensure life-long learning, civic participation and overall success.

ESL PLVL1 — ESL - Pre-Level 1
Literacy-level English students build a base of vocabulary and grammar through practice of listening, speaking reading and writing skills.

ESL SPKA — ESL - Speaking A
Beginning level students develop English listening comprehension and speaking fluency. Activities include talking in small groups or with partners, listening and responding to simple conversations, short presentations and pronunciation practice.

ESL SPKB — ESL - Speaking B
Intermediate level students improve English oral proficiency in areas of pronunciation, listening comprehension and speaking skills. Through group discussions and short presentations, students practice speaking with clarity and fluency, present their ideas and opinions, and make cultural comparisons.

ESL SPKC — ESL - Speaking C
Advanced level students expand listening and speaking strategies to facilitate academic preparation, workplace advancement and civic participation. Focus is on fluency, grammatical accuracy and appropriate social register. Activities include use of authentic material in group tasks and class presentations.

ESL SPKP1 — ESL Speaking A for Beginners (Pre-1)
Literacy level English listening comprehension and speaking skills. Activities include repetition exercises, listening and responding to simple conversations, retelling stories, and pronunciation practice.

ESL TOEFL — TOEFL Preparation
Advanced ESL students improve grammar, speaking and writing in preparation for standardization tests such as TOEFL.

ESL VHLLTH — English As A Second Language for Health Professionals
Advanced ESL students improve medical vocabulary and English skills for healthcare situations.

ESL WRTA — ESL Writing - A
Beginning level students develop reading and writing skills that set the foundation for their English literacy. Material is based on familiar topics and American customs. Focus is on vocabulary expansion, introduction to reading passages, and accuracy in sentence-level writing.
ESL WRB — ESL Writing – B
Intermediate level students improve English reading and writing proficiency through a variety of reading material and writing topics. Students gain fluency and confidence through abridged book reports, process writing and peer editing, primarily at the paragraph level.

ESL WRTP1 — ESL Writing A for Beginners (Pre-1)
Reading and writing skills that set the foundation for English literacy. Material is based on personal life, familiar topics and American customs. Focus is on vocabulary, introduction to reading passages, and accuracy in sentence-level writing.

OAD BHTH1 — Brain Health 1
Critical thinking and cognitive skills through understanding key structures and functions of the brain. Particular focus on auditory processing.

OAD BHTH2 — Brain Health 2
Age-related cognitive decline and preventative measures to strengthen and improve brain function. Particular focus on visual processing.

OAD ELL05 — Lifelong Learning Through Current World Events
Presents current events in a variety of ways to provide education about local, national and world issues to promote mental fitness of the older adult.

OAD FNA03 — Oil Painting
Provides the fundamental principles of drawing, design, color and composition for oil painting. Emphasis will be on creative expression to develop primary skills and techniques for oil painting as they relate to composition and technique. Students will receive a supply list at the first class meeting.

OAD FNA04 — Watercolor Painting
The fundamental principles of watercolor painting. Emphasis will be on creative expression to develop primary skills for watercolor painting as they relate to composition and technique. Students will receive a supply list at the first class meeting.

OAD FNA32 — Drawing - Beginning Through Advanced
Drawing while emphasizing the development of perceptual and technical skills. Students will advance their abilities in dry and fluid media while expanding their use of the formal elements and principles. The development of works of art will utilize observation of single objects, still life, and landscape for representation and expression. Students will receive a supply list at the first class meeting.

OAD MOX01 — Health Aging
Healthy aging, including diet, nutrition, disease prevention, and application of physical fitness principles to maintain health while aging.

OAD MOX02 — Healthy Aging – Principles of Slow Movement
Heath aging, including diet, nutrition, disease prevention, and application of Tai Chi principles to maintain health while aging.

OAD MOX04 — Healthy Aging – Principles of Posture and Flexibility
Health aging, including diet, nutrition, disease prevention, and application of Yoga principles to maintain health while aging.

OAD MOX06 — Healthy Aging – Principles of Aquatic Resistance
Healthy aging, including diet, nutrition disease prevention, and application of aquatic resistance principles to maintain health while aging.

OAD MOX11 — Fall Prevention: Balance and Mobility
Addresses, particularly for older adults, the risks and fears associated with falling. Includes setting realistic goals, minimizing environmental risks and balance exercises.

OAD 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.

OAD 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 and emerging technology.

OAD ESD05 — Intermediate Ceramic Productions
Includes the techniques used to create finished ceramic pieces; including the art of chalking on ceramics in the bisque form and wood surfaces by using oil based stains, metallic stains, colored creams, rubs and metallic and bronze finishes. Finalizing some pieces with electrical parts and mounting on wood bases will be considered. Discusses proper equipment usage and maintenance. Marketing and cost analysis will be covered. Students will receive a supply list at the first class meeting.

OAD ESD06 — Craft Painting for Business Opportunities
Paint on various surfaces including fabric, glass, wood, plaster and plastic. Includes product design, marketing and proper use of equipment and maintenance and emerging technology.

OAD ESD07 — Handcrafted Needlework for Retail Sales and Boutiques
Needlework technique including knitting, crocheting, embroidery, needlepoint for plastic canvas and emerging technology to construct finished products for sale.

OAD ESD08 — Jewelry Production and Design for Retail Sales
Design and construct wire-worked jewelry using beads & stones with various methods of wire wrapping, coiling, hammering and emerging technology.

OAD ESD09 — Sewing and Design
Basic sewing techniques for the older adult population, including basic tailoring, pattern reading, cutting and style design to construct professional-looking garments.

OAD ESD10 — Beginning Decorative Art Production for Retail Sales
Introduction to decorative painting and associated mediums for the older adult population, including painting on a variety of surfaces using tole art brush strokes used in folk art, stenciling and other design applications and emerging technology.

OAD ESD11 — Intermediate Decorative Art Production for Retail Sales
Intermediate tole art brush strokes on a variety of surfaces using acrylic paints, associated mediums and emerging technology to create finished products for the older adult population.

OAD ESD15 — Jewelry/Lapidary Production Design
Jewelry making, stone cutting, polishing and lapidary work and emerging technology for the older adult population.
CONTINUING EDUCATION

VOC HBBUS — Starting a Home-Based Business
Starting a home-based business to become self-employed. Includes basic marketing, finance and management skills.

VOC ADJ01 — The Administration of Justice System
History and philosophy of the justice system, subsystems, roles, relationships and theories of crime causation and correction.

VOC ADJ02 — Principles and Procedures of the Justice System
Roles and responsibilities of each segment of the justice system; additional focus on relationships between system segments and sub-system procedures from initial incident to final disposition.

VOC ADJ03 — Concepts of Criminal Law
Provides an overview of California criminal law from the perspective of the law enforcement officer.

VOC ADJ04 — Legal Aspects of Evidence
Criminal evidence, including admissibility, witness competency, privileged communication, hearsay and collection and preservation of evidence.

VOC ADJ05 — Community Relations
A comprehensive exploration of community problems designed for individuals in public service with major emphasis on community-oriented policing. Reviews public service image, diversity issues, human relations and reactions, crisis areas and confrontations with the public.

VOC ADJ06 — Concepts of Enforcement Services
Responsibilities, techniques and methods of police patrol with emphasis on the basic knowledge required in handling common police occurrences.

VOC ADJ13 — Concepts of Traffic Services
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 motorist public.

VOC ADJ20 — Principles of Investigation
Investigation; 4th Amendment issues including crime scene search and recording; collection and preservation of physical evidence; modus operandi; suspect profiling scientific aids; sources of information; use of informants; interviews and interrogation; follow up and case preparation.

VOC ADJ38 — Narcotics Investigation
Investigation techniques for drug enforcement. Drug effects, use of informants, amendment issues and handling of evidence.

VOC ADJ59 — Gangs and 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 ADJ68 — Administration of Justice Report Writing
Techniques for proper documentation of crime reports and related law enforcement records. Use of simulations and role-playing.

VOC ADJ74 — Vice Control
Code and case law dealing with vice; detection and suppression; apprehension and prosecution of violators; special consideration of laws dealing with gambling, prostitution, and sex crimes.

VOC AGL12 — 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 AGL13 — 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 AGL14 — 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 AGL16 — Horse Production
Selection, utilization, and management of the light horse emphasizing recreational aspects of the modern horse. Laboratory work includes actual experience in the care of horse and tack.

VOC AGL17 — Sheep Production
Various types of sheep enterprises and the ways and means of entering them. Includes class, laboratory and project work concerning all phases of sheep management, sheep handling, feeding, shearing, breeding, lambing and marketing. Practical skills taught on the school farm and sheep farms in the area.

VOC AGL18 — Horse Ranch Management
Skills and knowledge to work on or manage a modern equine ranch, including management of the breeding farm, farm layout, estrous cycles, breeding problems and stallion care.

VOC AGL19 — Horse Hoof Care
Emphasizes proper hoof care; shoeing, trimming and disease recognition and control.

VOC AGL20 — Horse Behavior and Training
Breaking and starting young horses. Concentrates on halter training of foals, ground work on yearlings, and green-breaking two-year-olds and up. Includes lunging techniques, driving, and breaking to a saddle. Training in collection, turning, backing, leads, and trailer loading.

VOC AGL30 — Beef Production
Principles and practices in the selection and management of feeder, market and breeding beef cattle. Economics of production, utilization of farm-grown feeds, and feedlot operations will be stressed.

VOC AGL34 — Livestock Judging and Selection
Study of form and appearance of farm animals as related to their function. Includes judging of breeding and terminal livestock as well as carcass evaluation.

VOC AGL96 — Animal Sanitation and Disease Control
Prevention and control of infectious diseases affecting domestic animals, including basic disease concepts, transmissions of infectious diseases, principles of sanitation and fundamentals of immunology.

VOC AGL97 — Artificial Insemination of Livestock
Theory and application of artificial insemination of domestic animals, including semen evaluation and processing, heat synchronization and pregnancy diagnosis.
VOC AGP70 — Pet Shop Management
The pet industry, pet shop operations and the economic aspects of the retail/whole-sale pet business. Includes organization and operation of pet shops, animal care prac-tices, and sound business management practices.

VOC AGP71 — Canine Management
Selection, feeding, housing, breeding and management of dogs, including commercial aspects of the dog as a domestic pet. Labora-tory work will include practical experience in the handling, training and grooming of dogs.

VOC AGP72 — Feline Management
Care and management of cats. Includes breed identifi-ca-tion and characteristics, grooming, showing, nutri-tion, practical care, behavior, breeding and housing.

VOC AGP73 — 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 spe-cies, feeding, health care, breeding and raising fish.

VOC AGP74 — Reptile Management
Care and maintenance of reptiles and amphibians, including snakes, lizards, turtles, tortoises, newts, sal-amanders and frogs. Identification and characteristics of reptiles commonly kept as pets. Housing, feeding, health maintenance, breeding and raising of reptiles.

VOC AGP76 — Aviculture - Cage and Aviary Birds
Presents cage and aviary birds marketed in the wholesale and retail pet trade, includ-ing 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 AGR01 — Horticultural Science
Horticulture skills and techniques for use in gardening, nursery, and landscape applications. Emphasis on propagation, cultural practices, and the study of plant relationships, structure, growth and development.

VOC AGR02 — Plant Propagation/Greenhouse Management
Plant propagation and production practices with emphasis on florists’ plants, woody ornamen-tals and fruits. Commercial techniques include seed propagation, cuttings, grafting and bud-ding, layering, fern sporing and division. Stresses greenhouses and other environmental struc-tures for plant propagation and production.

VOC AGR04 — Park Management
Management and operation of municipal park departments. Includes the development of budgets, purchasing, park policies, planning and scheduling.

VOC AGR05 — Park Facilities
Management and operation of different types of park facilities. Includes the management of sports fields, recreation centers, camp-gounds, aquatic facilities and golf courses.

VOC AGR13 — Landscape Design
Fundamentals and implementation of land-scape design. Principles of design, the design process, drafting, graphics, site evaluation, landscaping materials, and plant usage. Projects emphasize residential and small commercial sites.

VOC AGR15 — Interior Landscaping
Design, installation and maintenance prac-tices used in interior landscaping. Includes identification, culture and care of plants suit-able for interior use. Field trip required.

VOC AGR24 — Integrated Pest Management
Identifies common agricultural pests in Southern California and analyzes physical, biological and chemi-cal pest control principles and practices. Stresses use, safety, equipment, laws, and regulations of pesticides.

VOC AGR25 — Floral Design 1
Principles of floral design: form, style and composi-tion. Includes designing of floral arrangements, wreaths, sprays, baskets, bouquets, wedding flowers and corsages.

VOC AGR26 — Floral Design 2
Contemporary design theory emphasizing creativity, self-expression and professional design situations.

VOC AGR27 — Floral Design 3
Advanced principles of floral design and florist opera-tions management. Includes designs and operations related to holidays, parties, weddings, and sympathy.

VOC AGR29 — Ornamental Plants - Herbaceous
Identification, growths habits, culture and ornamental use of landscape annuals, biennials, perennials, ferns, indoor plants, groundcovers and vines adapted to cli-mates of California. Plants emphasized will come from the California Association of Nurseries and Garden Centers (CANGC) and California Landscape Con-tractors Association (CLCA) certification test plant lists.

VOC AGR30 — Ornamental Plants - Trees and Woody Shrubs
Identification, growth habits, culture and ornamental use of landscape trees and shrubs adapted to climates of California. Plants emphasized will come from the California Association of Nurseries and Garden Centers (CANGC) and California Landscape Contrac-tors association (CLCA) certification test plant lists.

VOC AGR32 — Landscaping and Nursery Management
Operation and management of wholesale and retail nurseries. Includes site location and layout of areas; greenhouse management; soil mixes and proper use of fertilizers, insecticides, fungicides, herbicides and growth regulators; irrigation; mechanization; financ-ing; personnel management; retail displays, advertis-ing and customer relationships; federal, state and local laws and regulations. Field trips are included.

VOC AGR39 — Turf Grass Production and Management
Introduction to cultivation, maintenance and manage-ment of turf grasses utilized for athletic fields, golf courses, parks, cemeteries, commercial and residential lawns. Identification, installation, cultural require-ments and maintenance practices are emphasized.

VOC AGR40 — Sports Turf Management
Prepares students to work in the sports turf industry. Emphasizes turf cultural techniques used in sports turf management. Includes turf surfaces used on baseball, football, soccer, tennis, golf courses, driving ranges and other sports fields in both profes-sional and amateur sports. Field trips are included.

VOC AGR50 — Soils Science and Management
Principles of proper soil management to optimize plant growth, including management of air, water, nutrients and organic matter. Physical and chemical properties of soil that govern soil reactions and interactions. Field trips are included.

VOC AGR51 — Tractor and Landscape Equipment Operations
Selection, operation, repair and maintenance of power equipment used in the landscape industry. Includes 2WD and 4WD tractors, skip loader, skid steer loader, backhoe, lawn mowers, edges, weed eaters, blower/ vacuum, rototillers, chainsaws, spraying equip-ment and all-terrain vehicles. Laboratory includes actual hands-on applications of this equipment.
VOC AGR52 — Hydraulics
Operation, maintenance and repair of hydraulics systems used on agriculture and industrial equipment. Emphasis: pumps, valves, cylinders, flow control, reservoirs, lines, motors and hydraulic transmissions. Laboratory provides hands-on application of hydraulic systems.

VOC AGR53 — Small Engine Repair 1
Principles and repair of small engines used in landscape, industrial and agricultural applications. Includes repairs of lawnmowers, chainsaws, 2-cycle engine, 4-cycle engine, spraying equipment, all-terrain vehicles, and other related gas-powered equipment.

VOC AGR55 — Diesel Engine Repair
Repair and maintenance of diesel engines used to power industrial, landscape and agricultural equipment. Students gain actual hands-on experience maintaining and repairing diesel engines.

VOC AGR56 — Engine Diagnostics
Analysis and evaluation of tractor power failure. Students gain actual experience in the proper diagnostic procedures of power equipment. Service, maintenance and repair of tractor electrical systems: electrical wiring, voltage regulators, generators, alternators, switches, gauges, batteries and test equipment.

VOC AGR57 — Power Train Repair
Service, maintenance and repair of power trains. Students gain experience with clutches, transmissions, differentials, power take-off units, and final drive used to transmit power on tractors and other outdoor power equipment.

VOC AGR62 — Landscape Irrigation - Design and Installation
Design and application of turf and ornamental irrigation systems. Design techniques, sprinkler system components and hydraulic principles used in nursery management, interior design, residential and commercial landscaping. Special emphasis is given to water conservation incorporating controlled flow technologies.

VOC AGR63 — Landscape Irrigation Systems Management
A systematic approach to water conservation in the landscape. Repair techniques that will allow a current system to efficiently operate to its initial design. Trouble-shooting procedures including field testing of valves and controllers. Irrigation efficiency testing will be incorporated to demonstrate proper methods of water audits and system.

VOC AGR64 — Landscape Irrigation - Drip and Low Volume
Conservation of water in the landscape by utilization of drip and low-flow irrigation practices. Design, installation techniques, operation and maintenance of drip and low-flow irrigation systems, including determination of Irrigation requirements, selection of emitters and low-flow devices, and uniformity of water distribution. Students will gain hands-on experience in design and installation techniques.

VOC AGR71 — Landscape Construction Fundamentals
Fundamentals of construction techniques and tools used in landscaping. Students will gain skills in construction projects that include surveying techniques, utilities (gas, water, electricity), woodworking and masonry.

VOC AGR72 — Landscape Hardscape Applications
Landscape construction pertaining to hardscape featured in the landscape. Estimation and installation of fences, walls, planters, patios, lighting, barbecues, gazebos, decks, pools, spas, fountains and pools. Students will gain hands-on experience in the laboratory activities.

VOC AGR73 — Landscaping Laws, Contracting, and Estimating
Landscape laws, contracting and estimating as they pertain to landscape construction. Information covered will be helpful for Landscape Contractor's (C-27 classification) licensing exam administered by the state of California. Students gain hands-on experience of contracting and running a business.

VOC AGR75 — Urban Arboriculture
Care and management of ornamental trees. Includes pruning techniques, fruit tree care, bracing, cabling, and pest control. Safe practices in the use of equipment including the use of ropes, chippers, boom trucks, chain saws, and identification and evaluation of common trees. Prepares students for the tree worker and arborist certification exams.

VOC ARC11 — Architectural Drawing
Basic graphic and drawing techniques, including architectural graphics, building construction fundamentals, and methods of drawings considered prerequisite to architectural design.

VOC ARC16 — Basic CAD and Computer Application
Basic CAD (Computer Aided Design and Drafting) and computer application in architecture, engineering and related fields (including basic word processing, spreadsheet, CAD and presentation applications). Students who repeat this course will improve skills through further instruction and practice.

VOC ARC18 — Architectural CAD and BIM
Intermediate CAD (Computer Aided Design and Drafting) specifically for architectural design and production. Portfolio of 2-D drawings and 3-D CAD models will be produced.

VOC ARC26 — Architectural CAD Illustration and Animation
Advanced architectural CAD drawings. Portfolio of working drawing and presentation applications of integrated 2-D and 3-D CAD models will be produced. Students who repeat this course will improve skills through further instruction and practice.

VOC BA07 — Principles of Accounting - Financial
Introduction to financial accounting which provides the foundation for continued coursework in accounting. Includes accounting concepts and techniques essential to the administration of a business enterprise, analyzing and recording financial transactions, accounting valuation and allocation practices and the preparation, analysis and interpretation of financial statements. Gives the student the tools and methods needed for decision making.

VOC BA70 — Payroll and Tax Accounting
Examines all areas of on-the-job payroll accounting. Surveys the various tax procedures required by the employer and employee in filing the correct forms for Social Security, federal and state income taxes and their reconciliation. Laws related to Worker’s Compensation, State Disability Benefit Laws and Fair Employment Practices are discussed.
VOC BA71 — Financial Planning
Personal financial planning for students who wish to understand their own finances or assist others in money management. Topics include income taxes, consumer credit, budgeting home ownership, banking functions, insurance, retirement planning investing and time value of money.

VOC BA72 — Bookkeeping - Accounting
Bookkeeping and accounting principles including the accounting cycle for service and merchandising companies, cash management, payroll and special journals. Computerized simulations and completion of an accounting project for a company.

VOC BA75 — Using Microcomputers in Financial Accounting
Application of basic accounting concepts utilizing ledger software program. Hands-on use of a microcomputer to process accounting transactions, prepare statements and reports, and complete accounting cycle tasks. Completion of a computerized accounting practice set will be required.

VOC BA76 — Using Microcomputers in Managerial Accounting
Analysis of financial data and preparation of managerial accounting reports using Excel software. Development of what-if formulas to be used as an aid in decision-making. Includes manufacturing and consolidation worksheets, financial statement analysis, and statements of cash flow.

VOC BM10 — Principles of Continuous Quality Improvement
History and evolution of thought in Continuous Quality Improvement, including the theories and methods of Deming, Juran and Crosby. The quality management process and tools for the continuous improvement of quality are presented. Relevant case studies are included.

VOC BM12 — Continuous Quality Improvement Team Building
Advisory Prerequisite: VOC BM 10
Provides comprehensive instruction in building and using Continuous Quality Improvement project teams including selection of team members and evaluation of team performance. Students completing the course will be qualified to participate as members of Continuous Quality Improvement teams, create and evaluate problem solutions applying tools for improvement planning and team decision making, and build an effective improvement plan.

VOC BM20 — Principles of Business
Overview of business and its functions, background, development, organization and opportunities. Business terms, current trends, methods, contemporary and future problems, and current business practices are covered.

VOC BM51 — Principles of International Business
International business environment with a global perspective. Includes global viewpoints across the full spectrum of business functions, including, but not limited to: accounting, finance, human resources, management, operations, production, purchasing and strategic planning.

VOC BM52 — Principles of Exporting and Importing
Practical information needed to participate in activities related to the exporting and importing of goods and services. Includes vocabulary, acronyms and information needed for an understanding of and participating in the exporting of goods and services.

VOC BM60 — Human Relations in Business
Behavior, personality, self-management, self-development, and elementary business psychology as an aid to furthering the student's business advancement and lifelong learning. Class discussions focus on the student's understanding of intrapersonal and interpersonal effectiveness with emphasis on communications, motivation, leadership and other related areas.

VOC BM61 — Business Organization and Management
Functions of management, techniques of decision making and problem solving, and methods used by the manager to achieve organizational goals. Various theories of management, lines of authority, functions of departments, and the importance of policies, procedures, and controls are discussed.

VOC BM62 — Human Resource Management
Direction of people including guidance, control, supervisory problems, training, job analysis, interviewing, testing, rating and other functions involving human resources. Designed to improve the overall understanding of the relationship between the individual and the business organization.

VOC BM66 — Small Business Management
Organizing, starting, and operating a small business enterprise. Emphasis on entrepreneurial applications in a small business environment.

VOC BM85 — Special Issues in Business
Practical information needed to participate in a selected product, service or concept. Includes characteristics and strategies to be used in the marketing process. Includes characteristics and strategies to be used in the marketing process.

VOC BM96 — Spelling and Vocabulary for Success
Advisory Prerequisite: VOC BM05
Learn to spell and define troublesome words. Improve basic spelling and vocabulary used by business and industry. Includes proper use of dictionary; word division; adding suffixes and prefixes; synonyms; computer-related vocabulary; and business vocabulary.

VOC BS35 — Professional Selling
Principles of selling and the role of a salesperson in the marketing process. Includes characteristics and skills necessary for a successful salesperson, techniques for prospecting and/or qualifying buyers, buyer behavior and critical steps in the selling process. Students develop and offer a sales presentation for a selected product, service or concept.

VOC BS36 — Principles of Marketing
Organization and function of the system of distributing goods and services from the point of production to the consumer. Preparation of a marketing plan using product, distribution, promotional and pricing strategies.

VOC BS50 — Retail Store Management and Merchandising
Principles and practices used in the management and merchandising of retail stores. Includes all aspects of the critical buying function, merchandising, promotional techniques, site selection, layout, staffing, market positioning and customer service.

VOC BS85 — Special Issues in Marketing
Provides marketing majors with a forum to gain knowledge, develop techniques, problem-solve and implement an actual business marketing plan. Special emphasis will be placed on the particular project of the actual business used as the class project.
Continuing Education

**OCCUPATIONAL COMPUTER INFORMATION SYSTEMS**

**VOC BCDP** — Basic Computing - Desktop Publishing
Basic desktop publishing to create and produce professional-looking publications.

**VOC BCPP1** — PowerPoint Basics 1
Basic use of PowerPoint to create slide presentations.

**VOC BCPP2** — PowerPoint Basics 2
Create PowerPoint presentations using text and object animation, video, audio and hyperlinks.

**VOC CPBC1** — Basic Computing Level 1
Introduction to the personal computer, including terminology and basic computer operations in a Windows environment. Instruction is hands-on. Note: Students may take this class only 2 times consecutively.

**VOC CPBC2** — Basic Computing Level 2
A hands-on course focusing on ways to create documents in applications such as Microsoft Word; includes basic computer maintenance and problem-solving techniques. Note: Students may take this class only 2 times consecutively.

**VOC CPBC3** — Basic Computing Level 3
Prerequisite: VOC CP-BC2 Basic Computing Level 2 Designed to increase word processing skills through creative projects which introduce computer graphics. Students will further their understanding of proper computer care and maintenance.

**VOC CPBE1** — Basic Excel 1
Introduction to Excel, including terminology and working with data in a spreadsheet application.

**VOC CPBE2** — Basic Excel 2
Basic functions in Excel including formulas, sorting, filtering data and formatting tables.

**VOC CPBE3** — Basic Excel 3
Basic Excel including storing, manipulating and analyzing data in spreadsheets and displaying data graphically.

**VOC CPCC** — Creative Computing
Develops creative skills in utilizing graphic designs for projects such as business cards, letterhead, labels, flyers, posters, greeting cards and computer-generated fabric designs. Proper marketing skills will also be discussed.

**VOC CS11** — Computer Keyboarding
Develops alpha and numeric keyboarding skills on a personal computer at a straight-key rate of 25 to 40 gross words with a predetermined error limit. Includes keyboarding of letters, tables and manuscripts.

**VOC CPCI** — Computer Laboratory
A lab study program designed to complement the lecture materials presented in computer program instructional courses.

**VOC CPNET** — Internet Research - An Introduction
Includes e-mail, research, terminology and functional capabilities of the Internet.

**VOC CS41** — Office Management Skills
Training and skill building in filing systems and procedures, proofreading, telephone techniques, faxing, emailing and electronic calendaring of events, appointments and meetings. (Formerly VOC CP28)

**VOC CS15** — Microcomputer Applications
Windows 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.

**VOC CS16** — Macintosh Applications
Macintosh computer skills including the operating system and word processing, database, spreadsheet and multimedia applications. (Formerly VOC CP10)

**VOC CS31** — Microsoft Word
Word processing with Microsoft Word and its editing, formatting, and language tools to create, edit and format business and publication documents. Includes creating flyers, newsletters, and other publications documents using advanced formatting techniques and tools. (Formerly VOC CP20)

**VOC CS51** — Microsoft PowerPoint
Using PowerPoint to plan, design and produce effective presentations. Includes creating charts, diagrams, and storyboards; developing appropriate text content; adding sound, animation and movies. (Formerly VOC CP50)

**VOC CS61** — Desktop Publishing Software
Using desktop publishing software to integrate text and various graphic objects, design, edit and produce a variety of high-quality business publications. (Formerly VOC CP60)

**VOC CSW15** — Web Site Development
Use of a professional visual Web-authoring application to plan, develop, implement, publish and maintain Web sites. Includes working with text and images, internal and external hyperlinks, image maps, tables, Cascading Style sheets, Web page content, Web forms, multimedia objects (Flash text, Flash buttons, sounds and video), interactions and behaviors, and Web page templates. Principles of Web site structures, documentation, management and maintenance will be discussed. (Formerly VOC CP13)

**VOC CNT50** — PC Servicing
PC and peripheral servicing techniques, preventative maintenance, hardware configurations, software configurations, software diagnostics, and the use of test equipment.

**VOC CNT52** — PC Operating Systems
Current operating systems required for A+ and Network+ Certification and general computer servicing. Topics include: identification of major components, installation, configuration, upgrading and troubleshooting.

**VOC CNT54** — PC Troubleshooting
Personal computer (PC) servicing. Includes isolating, identifying, and repairing specific problems in the computer environment at the hardware level. Prepares students for the A+ Certification Exam.

**VOC CNT56** — Home Theater, Home Integration and Home Security Systems
Home theater, home integration, and other home management systems. Emphasis on home theater, home management PLCs, security hardware and programming and the installation and servicing of such systems. Prepares the student for the California State Contractors C-7 voltage systems license.

**VOC CNT60** — A+ Certification Preparation
Prepares the student and qualified computer technician for the A+ certification examination. All aspects of the Core and OS test modules will be stressed through both lecture review and test simulation software.

**VOC CNT62** — Network+ Certification Preparation
Prepares the student and/or A+ certified technician for the Network+ Certification Examination. Individuals preparing for a job in the computer networking industry or who wish to become Network+ certified will find this course invaluable.

**OCCUPATIONAL CORRECTIONAL SCIENCE**

**VOC CRS10** — Introduction to Correctional Science
The field of corrections: county jail, probation, the California youth authority and the Department of Corrections as members of the Criminal Justice System. Includes philosophy, past and present practices and the criminal justice and correctional processes.

**VOC CRS15** — Control and Supervision of the Offender
Examine methods of controlling and supervising inmates. Emphasizes California’s methods in rapidly-expanding institutions. Students will visit an offsite facility.
VOC CRS20 — Correctional Law
Legal and due process rights for inmates. Inmate rights vs. needs of society, State, federal and appellate court decisions.

VOC CRS25 — Probation and Parole
Historical development of probation and parole with emphasis on current California programs. Defines the roles of courts, parole boards and the duties and responsibilities of the staff of probation and parole agencies.

VOC CRS30 — Ethnic Relations in Corrections
Historical survey of racial, cultural, and gender biases in the American corrections system. Impact of cultural, racial and gender differences on correctional staff and client interaction.

VOC CRS35 — Interviewing and Counseling in Corrections
Techniques of interviewing and counseling with emphasis on practical application. Needs of the client and agency will be stressed.

VOC CRS40 — Crime and Delinquency
Criminal behavior and types of crime and effects on society and victims. Stresses property crime, property offender, motivation and methods of control used by society.

VOC CRS45 — The Violent Offender
Violent crimes of felony assault, robbery, rape, the various types of homicide, and the characteristics of both the offender and the victim.

VOC EL10 — Introduction to Mechatronics
An introduction to the field of mechatronics, a combination of conventional electronic technology with mechanical and computer technology. Special emphasis is on robotics. Hands-on activities include the building of a robot.

VOC EL11 — Technical Applications in Microcomputers
Personal computer (PC) applications used in electronics technology. Includes word processing, spreadsheets, database, computer presentation methods, and internet research specifically designed for electronics technology.

VOC EL12 — Computer Simulation and Troubleshooting
Use of the personal computer for simulation and troubleshooting of both analog and digital electronic circuits. Circuit analysis, value substitution, and fault diagnosis will be done with the emphasis on “Electronics Workbench/Multisim” software. Students who repeat this course will improve skills through further instruction and practice.

VOC EL50A — Electronics Circuits - Direct Current (DC)
DC circuit theory covering resistive circuits, basic components, Ohm’s Law, Kirchoff’s Law, and network theorems. (Students seeking a survey course in electronics could take ELEC 90, Survey of Electronics, rather than ELEC 50A or 50B.)

VOC EL50B — Electronics Circuits (AC)
AC circuit theory covering inductors, capacitors, impedance, filters, decibels, and resonance. Analysis involves the use of complex numbers. Stresses passive components.

VOC EL51 — Semiconductor Devices and Circuits
Solid-state devices and circuits, including bipolar junction and field-effect transistors, rectifier diodes, operational amplifiers, and thyristors. Analog circuits studied include discrete and integrated circuit amplifiers, voltage regulators, oscillators and timers. Emphasizes configurations, classes, load lines, characteristic curves, gain, troubleshooting, measurements and frequency response.

VOC EL53 — Communications Circuits Theory
Analog and digital communication circuits theory. Emphasizes analog and digital modulation principles in AM, FM, SS, PLL, FDM, TDM, modems, fiber optics, and telecommunications circuits.

VOC EL54A — Industrial Circuits Theory
Industrial electronic components and basic control circuits. Includes time delay controls, solid-state controls, relays, opto devices, DC motor control, transducers, SCR, and UJT devices.

VOC EL54B — Industrial Electronic Systems
Expands on circuit theory and demonstrates systems application of industrial electronics including robotics, industrial production, automation, programmable and motor controllers. Emphasis is on programmable logic controllers.

VOC EL55 — Microwave Communications
Microwave components and circuits. Stresses transmission lines, Smith Charts, impedance matching, antenna characteristics, wave propagation, frequency analysis and measurement techniques.

VOC EL56 — Digital Electronics
Combination and sequential logic circuits emphasizing number systems, binary math, basic gates, Boolean algebra, Karnaugh maps, flip-flops, counters, and registers. Stresses design and troubleshooting techniques.

VOC EL61 — Electronic Assembly and Fabrication
Assembly and fabrication techniques in basic soldering, de-soldering and surface mount technology. Construction of coaxial and Category 5 cabling and connectors. Includes an overview of types of printed circuit board design. Students who repeat this course will improve skills through instruction and practice.

VOC EL62 — Advanced Surface Mount Assembly and Rework
Advanced course in assembly and repair (soldering) on surface mount assemblies. Prepares for the IPC surface mount assembly and rework certifications.

VOC EL74 — Microcontroller Systems
Emphasizes the software/hardware architecture for the typical microprocessor environment. The software instruction set and the hardware interface circuit design are covered for the microprocessor. Fundamentals and terms are covered for the personal computer (PC).

VOC EL76 — FCC General Radiotelephone Operator Licence Preparation
Prepares qualifies electronics and aviation technicians for the FCC commercial general radiotelephone operator license (GROL).

VOC EL78 — Laboratory Studies in Electronics Technology
Extended laboratory experience supplementary to those available in the regular program. Allows the student to pursue more advanced and complex laboratory projects and experiments.

VOC EM65A — Mathematics of Electronics - DC
Mathematics of DC circuits analyzing passive circuits including Ohm’s Law, Kirchoff’s Law, voltage dividers, current dividers, and network theorems.

VOC EM65B — Mathematics of Electronics - AC
Mathematics of AC circuits analyzing passive circuits including resistance, reactance, impedance, resonance, and complex numbers (polar and rectangle).

VOC KTCH60 — Customer Relations for the Technician
Customer relations (soft skills) for the technician, including benefits of knowing and using effective customer contact tools, proper customer interactions, ethics and maintaining customer satisfaction.
Continuing Education

OCCUPATIONAL  ELECTRONICS AND COMPUTER TECHNOLOGY

VOC EST50 — Electrical Fundamentals for Cable Installations
Electrical fundamentals for cable and wire installations and other low voltage systems. Includes DC/AC, solid-state devices, digital and microprocessor devices and their application to cable installations. Prepares students for the California State Contractors C-7 low voltage systems license.

VOC EST52 — Fabrication Techniques for Cable Installation
Fabrication techniques used in the installation of home theater, computer networks, home automation, and other low voltage system applications. Emphasis on hand and power tools, construction methods and materials as they apply to cable and wire installations.

VOC EST54 — Cabling and Wiring Standards
Cable and wire standards of video, voice and data wiring for home theater, computer networks, home automation, telecommunications, and other low voltage system installations. Emphasis on copper wire, coax, fiber optic, and structured cables. Prepares students for the California State Contractors C-7 low voltage systems license.

VOC EST56 — Home Electronic Systems
Home theater, home integration, and other home management systems. Emphasis on home theater, home management PLCS, security hardware and programming and the installation and servicing of such systems. Prepares students for the California State Contractors C-7 low voltage systems license.

VOC EST62 — Electronic Troubleshooting - 1
Troubleshooting basic electronic circuits and systems to component level. Circuits include: power supplies, amplifiers, audio circuits, home theater audio (Dolby S.1) and video circuits (analog TV).

VOC EST64 — Electronic Troubleshooting - 2
Troubleshooting advanced electronic video circuits and systems to component level. Includes digital TV and HDTV (plasma, LCD, DLP).

VOC EST70 — C-7 Low Voltage Systems License Preparation
Prepares students for the California State Contractors C-7 Low Voltage Systems license examination.

OCCUPATIONAL  FASHION AND FASHION DESIGN

VOC FSH08 — Introduction to Fashion
Fashion industry from concept to consumer: industry background and technology. Includes design, manufacturing, distribution, sales and promotion with emphasis on career opportunities and qualifications.

VOC FSH09 — History of Costume and Fashion
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.

VOC FSH10 — Clothing Construction 1
Essentials of industry standard apparel construction techniques using a variety of machines and equipment. Students will be given instruction in single needle machine operation, industrial overlock operation and garment assembly.

VOC FSH12 — Clothing Construction 2
Advanced industry construction techniques using overlock and single needle machines.

VOC FSH15 — Aesthetic Design in Fashion
Design principles and influences in apparel selection and fashion design. Projects applying design elements and principles using CAD software.

VOC FSH17 — Textiles
Manufacturing of textiles/fabrics and factors that determine the suitability for end use. Topics covered include natural and synthetic fibers, yarns, fabric construction, dyes, finishes, legislation and care. Emphasis is placed on selection criteria for textile product design and recent developments in the textile field.

VOC FSH20 — Illustration for Fashion and Costume Design
Drawing techniques for fashion and theatrical costume design. Application of the basic techniques used in drawing a well-proportioned male and female figure and in rendering garment flats using texture, fabric and design detail. Students will explore a variety of mediums.

VOC FSH21 — Patternmaking 1
Theory and application of basic flat patternmaking techniques to create garment designs using industry standards. By means of dart and seam manipulation, patterns will be created, constructed and fitted.

VOC FSH22 — Fashion Design By Draping
Three-dimensional dress design through draping fabrics directly to a dress form to create original designs and patterns or interpret fashion illustrations. VOC FSH21 is recommended as a pre-requisite for this course.

VOC FSH23 — Patternmaking 2
Intermediate pattern drafting and flat patternmaking, with the introduction to the sizing of patterns/grading. Development of patternmaking skills to include two-way stretch knits, swimwear, and complex construction. Students apply commercial manufacturing standards in producing size ranges for misses’ and women’s wear, to include skirts, pants, bodices, sleeves and collars.

VOC FSH62 — Retail Store Management and Merchandising
Principles and practices used in the retail buying and merchandising environment. This course emphasizes the buyer’s role in merchandising management, pricing strategies, promotion, retail formulas and costing calculations.

OCCUPATIONAL  HEALTH

VOC GOG10 — Introduction to Geographic Information Systems
An introduction to the fundamentals of a geographic information system (GIS), including history of automated mapping; introduction to cartographic principles; overview of software, such as ArcView; hardware; application of GIS technology in environmental sciences, government, business, terminology, data, and spatial analysis.

VOC ANA50 — Basic Anatomy and Physiology
Introduction to human anatomy and physiology by systems, with brief descriptions of biochemistry, cell biology and molecular biology. Upon completion, students will understand normal functions and be able to recognize pathologies.

VOC CPR01 — BLS Heartsaver Course - Adult
This three (3) hour course is designed to teach the life-saving skills of Cardiopulmonary Resuscitation, the first aid techniques for choking emergencies, and how to respond to general life-threatening emergency situations. Students will learn about the risk factors associated with heart attacks and strokes. Successful completion of the course will provide the student with an American Heart Association Heartsaver CPR Level A Completion Card, renewable in two years.

VOC HHA — Home Health Aide
Preparation to work in a skilled nursing facility and to pass the California Long-Term Care CNA exam. Co-requisite: Enrollment in VOC HLTH 05
VOC HTH01 — Certified Nursing Assistant
Prepares participant to work in a skilled nursing facility and pass California Long-Term Care CNA exam. Prerequisites:
- Current American Heart Association BLS for Health Care Providers card (must be valid for course duration)
- Completed Technology and Health Division Student Medical History and Physical exam form within the last 3 months
- Current Live scan fingerprint documentation.
- Valid identification (CA driver’s license or CA ID card) and Social Security card
Co-requisite: Enrollment in VOC HLTH 05

VOC HTH04 — Acute Care Nursing Assistant
This course Preparation of CNA to provide basic personal care to patients in acute care facilities and hospitals.

VOC HTH05 — Health Careers Resource Center
Health occupational training and experience using instructional equipment and simulators for health occupation competencies.

VOC HTH12 — Medical Terminology
Presents a study of the use and meaning of basic medical terminology.

VOC HTH18 — In-Home Care of Alzheimer’s and Dementia Clients
Information and educational activities with techniques to enhance one’s ability to work with Alzheimer’s/Dementia consumers, with an emphasis on effective communication skills and appropriate activities when working with consumers and delivering direct care.

VOC IHSS — In-Home Support Services
Preparation to assist elderly, disabled and ill persons living at home. Communication skills, maintenance of a healthy environment and procedures for emergencies. Physical, emotional and developmental characteristics of the patients served; personal hygiene, safe transfer techniques and basic nutrition.

VOC PT81 — Physical Therapy Aide
Role and skills of physical therapy aide. Includes terminology, procedures and interpersonal skills.

VOC RDTEC — Intravenous Therapy for Radiologic Technology
Principles of techniques of venipuncture. Includes anatomy and physiology of sites, instruments, intravenous (IV) solutions, equipment, puncture techniques, hazards and complications, emergency care, post-puncture care.

VOC HTH01 — Certified Nursing Assistant
Prepares participant to work in a skilled nursing facility and pass California Long-Term Care CNA exam. Prerequisites:
- Current American Heart Association BLS for Health Care Providers card (must be valid for course duration)
- Completed Technology and Health Division Student Medical History and Physical exam form within the last 3 months
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VOC RDTEC — Intravenous Therapy for Radiologic Technology
Principles of techniques of venipuncture. Includes anatomy and physiology of sites, instruments, intravenous (IV) solutions, equipment, puncture techniques, hazards and complications, emergency care, post-puncture care.

VOC ID10 — Introduction to Interior Design
Practice of interior design and the planning of total interior environments that meet individual, functional and environmental needs. Field trips may be required.

VOC ID12 — Materials and Products for Interior Design
Analysis, application and evaluation of products and materials used in interior design. Field trips are required.

VOC ID14 — History of Furniture and Decorative Arts
Historic development of structure, interior spaces, furniture and decorative arts throughout the world. Interior architecture is illustrated in this overview of design heritage and antiquity to present. Emphasis is placed on style development as it relates to social, economic and political influences as well as the use of materials and technology. Field trips may be required.

VOC MF10 — Mathematics & Blueprint Reading for Manufacturing
Applications of mathematical principles, including fractions, decimals, ratio/proportion, geometry and trigonometry to manufacturing problems and their solutions. Reading and interpreting part drawings, assembly drawings and sketches used in the manufacturing industry.

VOC MF11 — Manufacturing Processes 1
Manual and computerized manufacturing, manual lathes and mills, tool nomenclature and Computerized Numerical Control (CNC) operations. Operation of CNC machines. Students who repeat this course will improve skills through further instruction and practice.

VOC MF12 — Manufacturing Processes 2
The study of manufacturing equipment and manufacturing processes. Theory and practice in milling operations, tooling setup, metallurgy, heat treatment, precision grinding, and basic tool design.

VOC MF38 — MasterCAM 1
Use MasterCAM software to create wire-frame part geometry, add tool paths and create CNC code for CNC mills and CNC lathes. Students who repeat this course will improve skills through further instruction and practice.

VOC MF38B — Advanced MasterCAM
Use MasterCAM software to create wire-frame 3D/multi-axis part geometry, add tool paths, and create CNC code for CNC mills and CNC lathes. Students who repeat this course will improve skills through further instruction and practice.

VOC MF38C — MasterCAM Solids
Using MasterCAM software to design wire drawings, translate to solids drawings, and generate code from a solids creation to meet industrial standards. Students who repeat this course will improve skills through further instruction and practice.

VOC MF85 — Manual Computerized Numerical Control (CNC) Programming
Theory and practice in manually developing CNC programs. Methods of transmitting data to CNC machines and physical set-up and operations of CNC equipment. Students who repeat this course will improve skills through further instruction and practice.

VOC MF81 — Cooking for Your Heart and Health
Basic food preparation knowledge, skills, and experience. Principles and techniques of healthful food preparation and investigation of chronic disease prevention through dietary means. Includes laboratory experience in preparation of healthful foods and meals. Basic food preparation knowledge, skills, and experience is advised. Off-campus meetings may be required.

VOC NF82 — Vegetarian Cuisine
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. Basic food preparation knowledge, skills, and experience is advised. Off-campus meetings may be required.

VOC NF81 — Cooking for Your Heart and Health
Basic food preparation knowledge, skills, and experience. Principles and techniques of healthful food preparation and investigation of chronic disease prevention through dietary means. Includes laboratory experience in preparation of healthful foods and meals. Basic food preparation knowledge, skills, and experience is advised. Off-campus meetings may be required.

VOC CPDI — Digital Photography for the Beginner
Operation of digital cameras, image management and composition, development of research skills using the Internet, and imaging graphics software. A hands-on course which includes scheduled field trips.
CONTINUING EDUCATION

VOC GRP10 — Photo Imagery
Adobe Photoshop software skills, techniques and digital workflow practices from digital image editing and retouching to the composited imagery commonly created for using photography, commercial design, printing and publishing, the Internet and multimedia authoring production.

VOC GRP12 — Photoshop Imagery Extended
Adobe Photoshop Extended software skills and techniques for the creative photorealistic imagery commonly used in photography, commercial design, printing and publishing, the Internet and multimedia authoring production.

VOC GRP15 — InDesign Graphics
Adobe InDesign software skills, techniques and digital workflow from essential digital drawing basics to creatively conceived illustrative imagery and renderings commonly created for use in commercial design, printing and publishing, the Internet and multimedia authoring production.

VOC GRP16 — Illustrator Graphics
Adobe Illustrator software skills, techniques and digital workflow from essential digital drawing basics to creatively conceived illustrative imagery and renderings commonly created for self-expression, entertainment, commercial design, printing and publishing, the Internet and multimedia authoring production.

VOC GRP18 — 3D Graphics Imagery
3D graphics modeling skills and production techniques from 2D orthographic drawing to the creatively conceived 3D imagery and animated environments commonly created for self-expression, entertainment, commercial design, printing and publishing, the Internet and multimedia authoring production.

VOC GRP20 — Multimedia Graphics
Multimedia graphics software skills and production techniques for combining text, image, audio, video, animation and scripting media to author multimedia projects commonly created for self-expression, entertainment, commercial design, the Internet and multimedia production.

VOC 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 the student the opportunity to pursue more advanced projects and experiments.

VOC PHO10 — Basic Digital & Film Photography
The basic mechanical, optical and chemical principles of photography, including digital image systems. Laboratory experience involves problems related to camera and image output techniques.

VOC PHO11 — Intermediate Photography
Current professional techniques and studio lighting. Includes studio and field assignments related to problems encountered while professionally photographing people and products. Topics include medium and large format film and digital cameras, computer basics for professional photographers and studio lighting. Students must furnish a digital single lens reflex (DSLR) camera. Field trips may be required.

VOC PHO12 — Photographic Alternatives
Alternative photographic processes. Instant films: lifts and transfers, specialized lighting, staining, emulsion coating, sceenography and hand-made camera construction will be applied to produce images not considered common to making photographic prints.

VOC PHO15 — History of Photography
Survey of the history of photography from circa 1839 to the present. An introduction to concepts of photographic representation and their impact on society.

VOC PHO16 — Fashion Photography
Professional illustrative, editorial and advertising fashion photography. Studio and location production in digital capture. Business aspects of operation and working with clients are presented. Off-campus assignments may be required.

VOC PHO17 — Photocommunication
Affects that camera controls have on visual communication with photographs. Includes message enhancement using optical and digital controls, depth of field, lenses, lighting, composition, book, black and white vs. color images, and documentary and journalistic styles.

VOC PHO18 — Portraiture and Wedding Photography
Professional studio and field techniques and procedures for informal, formal, and environmental portraits with an emphasis on wedding photography. Includes lighting, color correction, digital techniques, photographic critique, and posing for individuals, couples, families and groups in the studio and on location. Also includes business and legal issues for wedding and portrait photography businesses. Off-campus assignment required.

VOC PHO20 — Color Photography
Focal point of color media, color negatives, positive transparencies, and outputting color prints.

VOC PHO21 — Exploring Color Photography
Use of color principles as they relate to commercial and artistic styles and innovative use of color applications. Includes lighting and unusual techniques, exaggerated and unique color schemes, light-painting, lighting effects, high dynamic range effects and oversize output.

VOC PHO28 — Photo Portfolio
Development of a photography portfolio and marketing materials for use in job application or gallery exhibition purposes. Field trips may be required.

VOC PHO30 — Commercial & Illustrative Photography
Overview of the commercial photographic industry. Exploration of the various commercial photography specialties including studio product and people photography, lifestyle, fashion and industrial/location photography, lifestyle, fashion and industrial/location photography with an emphasis on the development of a personal creative style. Field trips may be required.

VOC THR14 — Stagecraft
Theory and practice of scenery construction and stage lighting. Practical work in scene design and construction and lighting layouts, with the opportunity to perform these tasks in actual theatre situations. By virtue of the wide range of productions staged by the department, students who repeat this course will increase their skills and proficiency.

VOC THR15 — Play Rehearsal and Performance
Planning, preparation and presentation of college-sponsored dramatic presentations. Emphasis on acting with some technical theater assignments. Students who repeat this course will improve skills through further instruction and practice. Attendance at performances is required.

VOC THR16 — Theatrical Make-Up
An introduction to the theory and practice of make-up for the stage. The student will gain practice in the design and application of straight, stylized character, and other make-up techniques.

VOC THR18 — Technical Theater Practicum
Participation in the technical preparation and operation of productions presented to the community. The student will be involved in one or more of the following areas: stage scenery construction, stage lighting setup, property construction, stage sound 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.
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<th>Course Code</th>
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| VOC THR19   | Theatrical Costuming  
Theatrical costuming design and construction. Includes the study of costume history, principles of costume design, fibers and textiles, basic costume construction and design rendering techniques. Costumes are designed for major productions and provide practical instruction in actual performance demands on costumes and their proper maintenance. Class is suitable for people interested in costuming for theater, dance, film, television and reenactments. |
| VOC THR60   | Children’s Theatre  
Theory and practice of children’s theater. Evaluates play production techniques and literature for an audience of children. Includes analysis of plays for children and actual experience in acting, and producing children’s plays for public presentation. Field trips are required. |
| OCCUPATIONAL | TUTOR TRAINING |
| VOC TR10A   | Introduction to Tutoring  
Introduction to tutoring, with an emphasis on tutoring strategies, problem solving and working with a diverse student population. |
| VOC TR10B   | Tutoring in the Language Arts  
Tutoring in the English language with an emphasis on tutoring strategies, problem solving and addressing the needs of non-native speakers. |
| VOC TR10C   | Tutoring as a Supplemental Instructor  
Tutoring as a Supplemental Instructor with an emphasis on tutoring in the classroom and in small groups under the supervision of a designated instructor. |
| VOC TR10D   | Tutoring in Mathematics  
Tutoring in mathematics with an emphasis on strategies to promote active learning and dealing with specific obstacles in developmental algebra. |
| VOC TR10R   | Tutoring in Reading  
Methods of assessment, management of sessions and application of strategic reading processes. This course prepares students to become reading tutors for all READ students. |
| OCCUPATIONAL | WELDING |
| VOC WL30    | Metal Sculpture  
For students interested in art seeking the proper operation of welding processes related to the sculpting industry. Emphasizes the fundamentals of three-dimensional design. Includes demonstrations and exercises in welding as it relates to the art industry. |
| VOC WL40    | Introduction to Welding  
Fundamentals of welding processes related to the areas of fabrication, construction, machine tool, aerospace and the transportation industries. |
| VOC WL50    | Oxyacetylene Welding  
Oxyacetylene fusion welding, non-fusion welding and cutting. Develops understanding of and fundamental skills in modern welding practices. |
| VOC WL51    | Basic Electric Arc Welding  
An introduction to electric arc welding, weld symbols, standard electrode and alloy electrode selection, American Welding Society (AWS) procedure for certification. |
| VOC WL53A   | Welding Metallurgy  
Designed for students seeking a career in welding and welding inspection. Covers structure of matter, chemical, physical, and mechanical properties of metals, principles of alloying, solid state diffusion, plastic deformation, and heat treatment. |
| VOC WL60    | Print Reading and Computations for Welders  
Reading prints and performing computations for welding fabrication operations. Interpreting and visualizing prints, title blocks, welding symbols, specifications, notes, and bills of materials. Computations necessary to calculate materials, costs, sizes, and fractional, decimal and metric conversions. |
| VOC WL70A   | Beginning Arc Welding  
Develops manipulative skills and techniques for Shielded Metal Arc (SMAW) and (Flux Cored Arc (FCAW) welding processes in the flat and horizontal positions using AC and DC welding currents on carbon steel. |
| VOC WL70B   | Intermediate Arc Welding  
Welding high alloy steel with both Shielded Metal Arc (SMAW) and Flux Core Arc (FCAW) welding processes in the vertical and overhead positions with an introduction to Gas Metal Arc (GMAW) and Gas Tungsten (GTAW) welding. |
| VOC WL70C   | Certification for Welders  
Building construction for the advanced arc welding student. Special emphasis will be placed on welding symbols and the American Welding Society’s (AWS) D1.1 and D1.3. |
| VOC WL80    | Fabrication and Construction Welding  
Theory and practical applications of welding used in industry and construction. Designed to adapt and upgrade skills to industry standards. Includes project models such as ornamental iron gates and fences and material storage components. |
| VOC WL81    | Pipe and Tube Welding  
Advanced course designed to enable students with “all positions” welding skills in SMAW to apply welding skills to the pipe welding industry. Welding processes will include SMAW, GRAW, GMAW, FCAW on a variety of materials and configurations on sub-critical and critical piping and tubing. |
| VOC WL90A   | Gas Tungsten Arc Welding  
Advanced Gas Tungsten Arc Welding (GTAW) or tungsten inert gas (TIG) of steel, aluminum, corrosion resisting steel (CRES), and exotic metals. All position welds with many surfaces and transitions. |
| VOC WL90B   | Semiautomatic Arc Welding Process  
Semiautomatic Welding Processes including Gas Metal Arc Welding (GMAW), Flux Cored Arc Welding (FCAW), Submerged Arc Welding (SAW) with solid and tubular wires with and without gas shielding. All position welds with many varying thickness will be covered. |
| VOC WL91    | Automotive Welding, Cutting and Modification  
The art of welding and cutting metals commonly used in the automotive industry. Gas Metal Arc (GMAW/ MIG), Gas Tungsten Arc (GTAW/TIG), Plasma Arc Cutting (PAC), Oxy-Fuel Cutting (OFC) and welding will be covered. |
**COLLEGE POLICIES**

For detailed information regarding Mt. San Antonio College Board of Trustees Policies (BP) and Administrative Procedures (AP), go to http://http://www.mtsac.edu/governance/trustees/apbp/

**Accommodations and Academic Adjustments for Students with Disabilities**

Under Federal and State laws, the College is required to make modifications to academic requirements and practices as necessary in order to ensure that they do not discriminate against a qualified student with a disability. The College is also required to have a policy and procedure for responding to students with verified disabilities who request academic adjustments. Students with disabilities have the right to receive reasonable academic adjustments in order to create an educational environment where they have equal access to instruction without fundamentally altering any course, educational program or degree. Board Policy (BP 5140) and Administrative Procedure (AP 5140) for Students with Disabilities may be found at http://www.mtsac.edu/governance/trustees/policies.html and in Disabled Student Programs & Services, Ext. 4290.

**Alcohol and Other Drugs**

The possession or consumption of alcoholic beverages or illegal drugs prior to, or during any College-sponsored activity, on or off-campus, by any person attending, regardless of age, is forbidden by State law. The federal Drug-Free Schools and Communities Act Amendments of 1989, P.L. 101-226 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 current Schedule of Classes for the College's Alcohol and Other Drugs Policy (BP 3550, AP 3550).

**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). Leasing 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. (BP 3940)

**Campus Disturbances**

In accordance with California Penal Code (P.C. Section 626), 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. Visit the website 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 (BP 3930).

**Classroom Visitors and Other Attendees**

Classroom activities are intended to benefit those students officially registered for the class. Others are permitted to attend a regularly scheduled class meeting only in specific situations. The professor assigned to teach the class may grant permission to visit the class. Disabled Student Programs and Services (DSP&S) may authorize a person to be a Personal Care Attendant (PCA) when the need for such accommodation is authorized by DSP&S prior to beginning service as a PCA (BP 4700, AP 4700).

**Dress Regulation**

Students are expected to dress in accordance with commonly accepted standards of appropriateness. It is mandatory that shoes be worn as general campus attire.

**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 National Standards Institute Safety Code.

**Non-Discrimination Policy**

Mt. San Antonio College is committed to equal opportunity in educational programs, employment, and all access to institutional programs and activities. The College provides an educational and employment environment in which no person shall be unlawfully denied full and equal access to, the benefits of, or be unlawfully subjected to discrimination on the basis of ethnic group identification, national origin, religion, age, sex or gender, sexual orientation, race, color, ancestry, medical condition, marital status, veteran status, sexual orientation, or physical or mental disability (including HIV and AIDS), or on the basis of these perceived characteristics or based on association with a person or group with one or more of these actual or perceived characteristics, in any program or activity that is administered by the College. The lack of English language skills will not be a barrier to admission.

Students who believe they have been discriminated against may begin the process with Lorraine Y. Jones, Director EEO Programs, Human Resources Office, Building 4, Room 1460, 909-274-4225. Harassment and discrimination investigation procedures are described in Administrative Procedure 3435. Formal complaint forms can be found at: http://extranet.cccco.edu/Divisions/Legal/Discrimination.aspx. All complaints of unlawful discrimination or sexual harassment by students of the College will be fully investigated by Human Resources. College employees have similar rights which can be found in the College's Board Policy and Administrative Procedures. (BP 3410, 3430, AP 3410, 3430, 3435)

**Reserve Officer Training Corps (ROTC)**

Students interested in a military career can join an approved Reserve Officer Training Corps (ROTC) program offered through local universities. These programs are open to community college students pursuing an undergraduate degree, prior to transfer. Air Force ROTC programs are offered through Cal State San Bernardino, Loyola Marymount University, University of Southern California (USC) and UCLA; Army ROTC programs are offered at Claremont McKenna College, USC, UCLA and Cal State Fullerton; and Navy ROTC programs are offered through USC and UCLA. Competitive scholarships are available to qualified applicants as well as allowances for books and other costs. Students are advised to contact the ROTC program at the participating university.

**Sexual Harassment & Sexual Violence**

Sexual violence, including sexual assault, harassment, rape and stalking, are crimes that are not tolerated on this campus. Mt. San Antonio College has adopted Board policies and procedures to address sexual crimes, sanctions for offenders, and to outline access to treatment and general information for victims (BP 3430, 3500, 3540 and AP 3430, 3500, 3540). All applicable punishment, including criminal charges and disciplinary action, shall be applied whether the violator is an employee, student or member of the general public.

Services available to help assure student safety include:

- **Public Safety Escorts** are available during evening hours to escort students safely to their car. Escorts are stationed throughout campus or are provided upon request. Please call ext. 4233 or (909) 274-4233.
- **Blue emergency telephone towers** located throughout the campus and parking lots access Public Safety immediately for assistance.
- **Public Safety** can be reached at (909) 274-4555.
- **Call 911** for any emergency. Be prepared to identify your exact location.
- **Contact Student Life Office** at ext. 4525 to report incidents.
- **Student Health Services** at ext. 4400 provides personal counseling and medical attention.

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**College Policies and Notices**

**Smoking on Campus**
Student, employee, and visitor health is a primary concern of Mt. San Antonio Community College. Smoking is permitted only in designated smoking areas. Designated smoking areas can be found on campus maps and the College website. Violations of this policy will be subject to a citation and a fine, as allowed per Government Code 7597.1. Appeals may be submitted in writing to Public Safety within twenty-one (21) calendar days of issuance of the citation. (BP 3565, AP 3565)

**Standards of Conduct**
(BP 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 disability, gender, gender identity, gender expression, marital status, nationality, race or ethnicity, religion, sexual orientation, or any other status protected by law.
10. Engaging in intimidating conduct or bullying against another student through words or actions.
11. Willful misconduct that results in injury or death to a student or to College personnel or which results in cutting, defacing, or other injury to any real or personal property owned by the College or on campus.
12. Disruptive behavior, willful disobedience, habitual profanity or vulgarity, or the open and persistent defiance of the authority of, or persistent abuse of, College personnel.
13. Cheating, plagiarism (including plagiarism in a student publication), or engaging in other academic dishonesty.
14. Dishonesty, forgery, alteration or misuse of College documents, records or identification; or knowingly furnishing false information to the College.
15. Unauthorized entry upon or use of College facilities.
16. Lewd, indecent or obscene conduct on College-owned or controlled property, or at College-sponsored or supervised functions.
17. Engaging in expression which is obscene, lelibous 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.
18. Persistent, serious misconduct where other means of correction have failed to bring about proper conduct.
19. 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.
20. Harassment of students and/or College employees that creates an intimidating, hostile, or offensive environment.
21. 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 Academic Honesty**
All members of the academic community have a responsibility to ensure that scholastic honesty is maintained. Faculty have 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.

**Cheating and Plagiarism**

**Cheating (Academic Dishonesty)**
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 person take an examination for you
- Presenting another person’s work as your own
- Forging or altering registration or grade documents
- Submitting collectively developed work as your own, unless specifically allowed by the professor

A professor who determines that a student has cheated may give the student a failing grade for the assignment and should report the alleged academic dishonesty to the Student Life Office, which will maintain a record of the report and appropriate action under the provisions of the Administrative Procedures on Student Discipline (AP 5520).

Students are advised that allegations of dishonesty are serious, and can lead to disciplinary sanctions including suspension and expulsion. (BP 4290, AP 4290)
Plagiarism

"Plagiarism is a direct violation of intellectual and academic honesty. Although it exists in many forms, all plagiarism refers to the same act: representing somebody else’s words or ideas as one’s own. The most extreme forms of plagiarism are the use of material authored by another person or obtained from a commercial source, or the use of passages copied word for word without acknowledgment. Paraphrasing an author’s idea or quoting even limited portions of his or her text without proper citation is also an act of plagiarism. Even putting someone else’s ideas into one’s own words without acknowledgment may be plagiarism. In none of its forms can plagiarism be tolerated in an academic community. It may constitute grounds for a failing grade, probation, suspension, or expulsion."

"One distinctive mark of an educated person is the ability to use language correctly and effectively to express ideas. Faculty assign written work for the purpose of helping students achieve that mark. Each instructor will outline specific criteria, but all expect students to present work that represents the student’s understanding of the subject in the student’s own words. It is seldom expected that student papers will be based entirely or even primarily on original ideas or original research."

"Therefore, to incorporate the concepts of others may be appropriate with proper acknowledgment of sources, and to quote others directly by means of quotation marks and acknowledgments is proper. However, if a paper consists entirely of quotations and citations, the paper should be rewritten to show the student’s own understanding and expressive ability. The purpose of the written assignment (i.e., development of communication and analytic skills) should be kept in mind as each paper is prepared. It should not be evaded through plagiarism."**

*Adopted, with permission of California State University, Los Angeles, from their policy printed in the 1987-88 General Catalog.

Student Complaints/Grievance Process

Students are encouraged to follow the Mt. San Antonio College Complaint and Grievance process before attempting to file a complaint with the State. Issues that are not resolved at the campus level may be presented:

- To the Accrediting Commission for Community and Junior Colleges (ACCJC) at http://www.accjc.org/complaint-process if your complaint is associated with the institution’s compliance with academic program quality and accrediting standards. ACCJC is the agency that accredits the academic programs of the California Community Colleges.
- To the CCC Chancellor’s Office if your complaint does not concern CCC’s compliance with academic program quality and accrediting standards. http://californiaccunitycolleges.ccco.edu/complaintsform.aspx

Grievances must be filed no later than 30 school days (Monday - Friday when classes are in session) after the beginning of the primary term following the alleged violation, or 30 school days from the time that the student learns of the basis for the grievance. To begin the formal grievance process, students may obtain Grievance Procedures and forms from the Student Life Office, Building 9C. It is recommended that students meet with the Student Life Director regarding the grievance prior to starting the process since timelines are established for every step of the process and must be met precisely.

The process for filing and pursuing a grievance includes two levels: in Level I (informal level) the student picks up the grievance forms and official procedures from Student Life and attempts to resolve the problem by meeting first with the faculty member (or staff member/administrator for non-academic grievances) and then the faculty member’s department chair or immediate supervisor. If the complaint is not resolved at that level, the student will meet with the division dean of the faculty defendant in an effort to resolve the problem. In the event that the problem cannot be resolved within 10 school days, the student may proceed to Level II (formal grievance) in which the student submits 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 formal hearing process to seek clarification from the parties involved. If the student or faculty/staff member chooses to appeal the decision of the Committee, the appeal is submitted to the College President. The final appeal process resides with the Board of Trustees; their decision concludes the grievance process (AP 5530).

Traffic 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 rules and regulations adopted pursuant to Section 21113 of the California Vehicle Code and the Mt. San Antonio College Board of Trustees (BP 6730, AP 6750).

All vehicles parked in designated student lots MUST bear a valid parking permit. The Student Parking Permit is valid in designated student lots except pay lots or in spaces controlled by parking meters or reserved signage. Student Parking Permits are not valid in designated employee parking lots. Free 30-minute parking is available north of the Bookstore (Building 9A), west of the Administration Building (Building 4), and south of the Performing Arts Center. Permit parking regulations are strictly enforced 24 hours a day, 7 days a week.

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 (BP 3410, AP 3410).

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 (BP 5052, AP 5052).

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 in Building 23. A Public Safety crime log is published bi-monthly in the student newspaper and Emergency Procedures are posted throughout the campus. (BP 3515, AP 3515)
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) 274-4555, 24 hours a day, seven days a week. Public Safety may also be contacted during and after business hours from public telephone locations on campus by dialing “91." In the event of an emergency, students and staff are requested to make a prompt and accurate report to the Public Safety Department. The Public Safety Department is located at the southeast portion of the campus off Bonita Drive in Building 23. (AP 3503)

Enforcement
The Mt. San Antonio College Public Safety Department has the authority to enforce the Student Discipline Code of Conduct and the State of California Penal Code under Education Code Section 72330. The Mt. San Antonio College Board of Trustees has established the Public Safety Department as a community college police department under Education Code Section 72330(a), which authorizes the governing board of a community college district to establish a community college police department under the supervision of a community college chief of police. Although a designated police department, the Mt. San Antonio College Public Safety Department has a memorandum of understanding mandated by the "Crime Awareness and Campus Safety Act of 1990," that the Los Angeles County Sheriff's Department has jurisdiction to investigate all crimes occurring on Mt. San Antonio College Campus. (BP 3520, AP 3520)

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. (AP 3500)

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 23. 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. (BP 3505, AP 3500, 3520)

PUBLIC SAFETY DEPARTMENT STATISTICAL CRIME REPORT

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Notice of Students’ Rights and Privacy Act
Students at Mt. San Antonio College are notified annually of their rights under FERPA (Family Educational Rights and Privacy Act) within this section of the Catalog. More detailed information on student rights is available from http://www2.ed.gov/policy/gen/uid/fpco/ferpa/index.html. Following is a summary of the Mt. San Antonio College policy related to the Family Educational Rights and Privacy Act of 1974 (FERPA), P.L. 93-380 (also referred to as the Buckley Amendment) and (Chapter 1297, Statutes of 1976, State of California): 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 Family Policy Compliance Office, U.S. Department of Education, 400 Maryland Ave., S.W., Washington, D.C., 20202-5920, concerning alleged failure of the College to comply with the provisions of FERPA.

Access to Educational Records
All former and present students have the right to review and inspect their educational records in the Office of Admissions and Records provided they make a written request fifteen (15) days in advance. Such a review will be under the direct supervision of a classified or certificated employee in the Admissions and Records Office. Expressly exempted from the right of review and inspection are the following materials:

1. Financial records of the parents of the student(s).
2. Confidential letters and statements of recommendation maintained by the College on or before January 1, 1975, provided that such letters or statements are not used for purposes other than those for which they were specifically intended.
3. Records of instructional, supervisory, counseling, and administrative personnel which are in the sole possession of such personnel and are not accessible or revealed to any other person except a substitute.
4. Records of employees of Mt. San Antonio College, made and maintained in the normal course of business which relate exclusively to such person in that person's capacity as an employee, are not available for use for any other purpose.
5. Records of students made and maintained by the Student Health Services, the College nurse, the College physician, and the College therapist, which are used in the treatment of students and are not available to anyone other than persons providing such treatment. However, such a record may be personally reviewed by a physician or other appropriate professional of the student's choice.

Release of Educational Records Information
1. Any release of a student's educational records, with the exception listed below, must be made with the student's written consent.
2. The College may release copies of or otherwise divulge material in the student's educational records only to the official agencies, groups, officials, or individuals specifically mentioned below:
   a. College staff members; provided that such employees have a legitimate educational interest to inspect such a record.
   b. Representatives of the Comptroller General of the United States, the Secretary of Education, and the administrative head of an educational agency, state education officials, and the United States Office of Civil Rights, where such information is necessary to audit a program.
c. Accrediting organizations in order to carry out their accrediting functions.
d. Organizations conducting studies on behalf of the institution.
e. Officials of other schools or school systems in which the student seeks or intends to enroll subject to the rights of students.
f. Agencies or organizations in connection with a student’s application for financial aid.
g. Organizations conducting studies for, or on behalf of, educational agencies or institutions for the purpose of developing, validating, and administering tests, administering student aid programs, and improving instruction, if such studies are conducted in such a manner as will not permit the personal identification of students or their parents by persons other than representatives of such organizations and such information will be destroyed when no longer needed for the purpose for which it is compiled.
h. Appropriate persons in connection with an emergency if the knowledge of such information is necessary to protect the health and safety of the student or other persons.
i. Courts or other agencies in compliance with a subpoena or judicial order. A reasonable effort will be made to notify the student in advance of the compliance by the College.

3. Directory Information:
a. “Directory Information” means a student’s name, community of residence, major field of study, participation in officially recognized activities and sports, weight and height of members of athletic teams, dates of attendance, degrees and awards received, and the most recent previous public or private school attended by the student.
b. Any student desiring to withhold “Directory Information” may file a written request with the Dean, Enrollment Management, within fifteen (15) days of the opening day of each semester or session that the student does not want such information released.
c. The College reserves the right to limit or deny the release of specific categories of directory information based upon a determination of the best interests of the student(s).

Student Right-to-Know Rates
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. For this calculation, a fall cohort of all certificate, degree-, and transfer-seeking first-time, full-time students are 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. A Completer is a student who attained a certificate or degree or became “transfer-prepared” during a three-year period. Students who are “transfer-prepared” have completed 60 transferable units with a GPA of 2.0 or better. Transfer students are those who 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. For up-to-date rates please see http://srtk.cccco.edu/index.asp

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 (AP 5040).
SECTION THIRTEEN

Faculty and Academic Administrators

Committed to Student Success
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<th>Name</th>
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Deines, Craig B. (1997)
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DePaola, Gina (1991)
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Distante, Debbie (2000)
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Dorough, George D. (1991)
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Dougaherty, Michelle (2007)
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Dowdle, Michael (2005)
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Chemistry
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Earhart, Kimberly (2005)
History & Art History
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Theater
B.A., Antioch College, Ohio
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Air Conditioning & Welding
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Music
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Computer Information Systems
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Radiologic Technology
A.S., Mt. San Antonio College
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C.R.T., Certified Radiologic Technologist California Certified Mammographer
R.T., American Registry of Radiologic Technology
R.T. (M), American Registry of Mammography

Engle, Tim (2006)
Disabled Student Programs & Services
B.S., Liberty University
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<td>Computer Information Systems</td>
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Faculty and Academic Administrators

Metter, Jean (1999)
Consumer Science & Design Technologies
B.S., California State Polytechnic University, Pomona
M.P.H., University of California, Berkeley

Meyer, Elisabetta (2001)
Biological Sciences
B.A., University of Pennsylvania
Ph.D., Michigan State University

Mezaki, Barbara (1990)
American Language
B.A., University of Buffalo
M.Ed., University of Buffalo
J.D., Southwestern University

Miho, Yoshiko (2014)
English as a Second Language
A.A., Grays Harbor Community College
B.A., Western Washington University

Miller, Kenneth (2011)
Electronics
B.S., California State Polytechnic University, Pomona
M.S., California State University, San Bernardino

Miran, David (2000)
Biological Sciences
B.A., University of Pennsylvania
M.S., California State University, Davis

Mrofka, David (2011)
Earth Sciences
B.S., Ph.D., University of California, Riverside

Muñiz, Laura A. (2005)
Counseling, EOP/CARE
A.A., Mt. San Antonio College
B.S., California State University, Fullerton
M.S., University of La Verne

Munro, Matthew J. (1998)
Mathematics, Computer Science
B.S., University of Washington
M.A., University of Colorado

Myers, Richard (2011)
English, Literature and Journalism
B.S., University of La Verne
M.A., California State Polytechnic University, Pomona

Nakamura, Amy Bates (2005)
Dance
B.A., California State University, Fullerton
M.F.A., University of California, Irvine

Nassar, Sam (2007)
Counseling
B.A., California State Polytechnic University, Pomona

Nazzal, Jane (2012)
Learning Assistance
B.A., M.Ed., University of California, Los Angeles

Nejad, Iraq Behbahani (1992)
Chemistry
B.S., Judi Shapur University, Iran
Ph.D., Michigan State University

Neel, Monique (2006)
Radiologic Technology
A.S., A.A., Mt. San Antonio College
B.A., University of Phoenix
Certified Radiologic Technologist California
Certified Mammographer
R.T., American Registry of Radiologic Technology
R.T. (M), American Registry of Mammography

Chemistry
B.S., Northern Arizona University
Ph.D., University of California, San Diego

Nguyen, Bao-Chi (2010)
Mathematics, Computer Sciences
B.S., University of California, Los Angeles
Ph.D., Massachusetts Institute of Technology

Biological Sciences
B.A., University of California, San Diego
M.D., University of California, Irvine
Ph.D., University of California, Los Angeles

Nguyen, Thang X. (2014)
Chemistry
B.S., University of California, Irvine
Ph.D., California Institute of Technology

Nitta, Akira (Art) (2006)
Mathematics, Computer Science
B.A., University of Irvine
M.S., California State Polytechnic University, Pomona

Nixon, Bruce (1999)
Mental Health Technology
B.S., California State Polytechnic University, Pomona

Obrien, Paul (1999)
English, Literature & Journalism
B.A., University of California, Los Angeles
M.A., San Jose State University

Ocampo, James (1990)
Director, Assessment & Matriculation
B.S., California State University, Northridge

Olds, Jennifer (2008)
English, Literature & Journalism
B.A., M.A., California State Polytechnic University, Pomona

Orr, Jondea (2004)
Nursing
A.D.N., Rio Hondo College
B.S.N., California State University, Dominguez Hills
M.S.N., University of Phoenix

Ott, Serena (2012)
Foreign Languages
B.A., University of Bologna, Italy
M.A., University of Saarland, Germany

Padilla, Maya (2011)
Registered Veterinary Technician
A.A., Mt. San Antonio College
B.A., California State Polytechnic University, Pomona

Parker, Stacy (2001)
Kinesiology/Athletics / Head Coach, Men's Baseball
B.A., University of California, Irvine
M.Ed., Azusa Pacific University

Parra, Heidi R. (1992)
Biological Sciences
A.A., Cerritos College
B.A., M.A., California State University, Fullerton

Pascoe, Virginia (1995)
Mathematics
A.A., Cerritos 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 Theological Seminary

Pedersen, Kirk (1998)
Fine Arts
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, Anabel (2007)
Counseling, Bridge Program
B.A., University of California, Los Angeles
M.S., California State University, Long Beach
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Faculty and Academic Administrators

Rubenstein, Susie (2005)
Fine Arts
B.A., University of California, Santa Cruz
B.F.A., Kansas City Art Institute
M.F.A., Cranbrook Academy

Rudd, Terry Shaylor (1988)
Mental Health Technology
A.S., East Los Angeles College
B.S., California State University, Fullerton
M.S., California State University, Los Angeles

Ruh, Marc T. (1997)
Kinesiology/Athletics / Head Coach, Men’s Water Polo and Swimming
A.A., Mt. San Antonio College
B.A., University of California, Santa Barbara
M.A., Azusa Pacific University

Russell, Paul (1988)
Learning Assistance
B.S., California State Polytechnic University, Pomona
M.Ed., California Lutheran College

Scott, Brian (2001)
Agricultural Sciences
A.S., Mt. San Antonio College
B.S., California State Polytechnic University, Pomona

Scott, Sarah (2007)
Biological Sciences
B.S., University of Massachusetts, Amherst
M.S., University of Connecticut, Storrs

Shackelford, Stephen (2010)
Aeronautics, Transportation
B.A., University of San Francisco
M.A.S., Embry-Riddle Aeronautical University

Sherwood, Kelly (2009)
Medical Services Department
A.A., Lake Tahoe Community College
B.S., Excelsior College

Sholars, Joan (1991)
Mathematics, Computer Science
B.A., M.A., California State University, Fullerton

Shim, Jim (1998)
Counseling
B.A., M.A., California State University, Fullerton

Shone, Darrow (1992)
Air Conditioning, Welding, & Water Technologies
A.A., Riverside City College
B.A., University of California, Riverside
M.A., California State University, San Bernardino

Siouci, Donald (1999)
Physics & Engineering
B.S., University of California, Santa Barbara
M.S., University of Illinois, Urbana-Champaign

Silva, Lawrence (2005)
Learning Assistance
B.A., California State Polytechnic University, Pomona
M.A., Chapman University

Simon, Curtis (2009)
Geography & Political Science
B.A., University of California, Santa Cruz
M.A., University of California, Riverside
Ph.D., University of California, Davis

Sloan, Sayedeh Omideh (2008)
Assistant Director, Adult Basic Education
B.A., George Washington University
M.A., Ph.D., University of California, Santa Barbara

Smith, Bailey K. (2009)
Assistant Director, Adult Basic Education
B.A., University of California, Fullerton

Smith, Daniel E. (1998)
Commercial and Entertainment Arts
B.A., California State University, Fullerton

Smith, John K. (2001)
Director, Learning Assistance Center
B.A., California State University, Santa Cruz
M.A., University of Wisconsin - Milwaukee

Smith, Jim (1998)
Counseling
B.A., M.A., California State University, Fullerton

Soto, Lina (2001)
Counseling
B.A., University of California, San Diego
M.A., San Diego State University

Sparks-Mackey, Maxine (1990)
Geography & Political Science
B.A., University of Redlands
M.P.A., University of Southern California
Ph.D., Claremont Graduate School

Stewart-Thomas, Michelle (2007)
Sociology, Philosophy
M.S., Purdue University
M.A., Fuller Theological Seminary
Ph.D., University of Southern California

Stokes, Nona (1999)
American Language
B.S., Howard University
M.S., Ph.D., Georgetown University

Stone, James (2008)
Geography & Political Science
M.A., University of Kentucky
M.F.A., Ph.D., Chapman University

Theater
B.S., Eastern Michigan University
M.F.A., University of Iowa
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<td>Takahashi, Shelley</td>
<td>2014</td>
<td>Architecture and Engineering Design Technology</td>
<td>B.S., California State University, Long Beach</td>
<td>M.B.A., Pepperdine University</td>
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<td>Takashima, Timothy</td>
<td>2000</td>
<td>Mathematics, Computer Science</td>
<td>B.S., M.S., California State University, Long Beach</td>
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<td>Tamayo, Santiago (Jimmy)</td>
<td>2002</td>
<td>Mathematics, Computer Science</td>
<td>B.S., California State Polytechnic University, Pomona</td>
<td>M.S., University of California, Riverside</td>
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<td>Tetoian, Vahe</td>
<td>1990</td>
<td>Physics, Engineering</td>
<td>B.S., Yerevan University, Armenia</td>
<td>M.S., Drexel University</td>
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<td>Tellez, April</td>
<td>2008</td>
<td>History &amp; Art History</td>
<td>B.A., M.A., University of California, Riverside</td>
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<td>Terreri, Joseph P.</td>
<td>1989</td>
<td>Mathematics, Computer Science</td>
<td>B.S., M.S., California State Polytechnic University, Pomona</td>
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<td>Teske, Margaret</td>
<td>2002</td>
<td>Manager, ESL Instructional Support</td>
<td>B.S., University of Northern Colorado</td>
<td>M.S., Colorado State University</td>
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<td>Thankamushy, Sreekanth</td>
<td>2014</td>
<td>Commercial and Entertainment Arts</td>
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<td>Thay, Cecilia</td>
<td>2012</td>
<td>Child Development</td>
<td>B.A., Institute of Education, Rangoon, Burma</td>
<td>M.S., University of La Verne</td>
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<td>Thomas, Antoine</td>
<td>2006</td>
<td>Counseling</td>
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<td>Thomas, James D.</td>
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<td>English, Literature &amp; Journalism</td>
<td>B.A., Westmont College</td>
<td>M.A., Ph.D., Claremont Graduate University</td>
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<td>Todd, Douglas</td>
<td>1995</td>
<td>Kinesiology/Athletics</td>
<td>Head Coach, Women's Cross Country / Assistant Coach, Men's Track and Field</td>
<td>A.A., El Camino College</td>
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<td>Tolano-Leveque, Maryann</td>
<td>2009</td>
<td>Director, Student Life</td>
<td>B.S., M.A., California State Polytechnic University, Pomona</td>
<td>Ed.D., University of Southern California</td>
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<td>Counseling</td>
<td>B.A., California State University, Fullerton</td>
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**LEGEND FOR CAMPUS MAP**

- **PAY LOT**
- **STUDENT LOT**
- **STAFF LOT**
- **DAY-USE PERMIT**
- **DISPENSER**
- **HANDICAP PARKING**
- **30 MINUTE PARKING**
- **PARKING METERS**
- **VAN ACCESS SERVICES**
- **FOOD / SUPPLIES**
- **EMERGENCY* BLUE PHONE**
- **OUTDOOR PUBLIC PHONE**
- **SMOKING AREA**

*NOTE: ONE PHONE AT EACH LOCATION IS SET-UP FOR AUTO DIAL TO SECURITY AT NO CHARGE FOR EMERGENCY ONLY*

**Revised 03/10/14**
MISSION

The mission of Mt. San Antonio College is to support students in achieving their educational goals in an environment of academic excellence.

MT. SAC
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Celebrating excellence and distinction!

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