Building for Our Future!
ACKNOWLEDGMENTS

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ACCREDITATION
Mt. San Antonio College is reviewed and accredited by the Accrediting Commission for Community and Junior Colleges (ACCJC) of the Western Association of Schools and Colleges. This accreditation authorizes the College to offer courses that parallel the first two years of the curricula for state universities. The ACCJC can be contacted in writing at 10 Commercial Boulevard, Suite 204, Novato, California 94949 or by phone at (415) 506-0234.

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

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

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

Mt. San Antonio College
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Walnut, California 91789

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(Hearing Impaired)

www.misac.edu
Building for the Future

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

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

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

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

We remain committed to helping you build your future.

Dr. John S. Nixon
President & CEO

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Xavier Padilla, Student Trustee
### Contents

**Accreditation and Changes in this Catalog** ........................................ i  
**President's Message** ................................................................. ii  
**Contents** .................................................................................... iii-v  
**College Calendar** ................................................................. vi-viii  
**College Directory** ................................................................. ix  

**SECTION 1 — The College**

- **Mt. San Antonio College** ....................................................... 1  
- **History** .................................................................................. 1  
- **Mission, Vision, and Values** .................................................. 1  
- **College Organization** .......................................................... 2-4  

**SECTION 2 — Matriculation**

- **Admission and Registration** .................................................. 6-8  
  - **Admissions** ........................................................................... 6  
  - **Application to the College** .................................................. 6  
  - **Residency Requirements** .................................................... 6  
  - **College Starter Program** .................................................... 6  
  - **Evaluation of Other College Coursework** ......................... 7  
  - **Acceptance of Domestic Coursework from Accredited Colleges and Universities in the United States** ............... 7  
  - **Articulation with High Schools, ROPs and Adult Schools** .... 7  
  - **Admission of International Students** ................................ 7  
  - **Registration** .......................................................................... 8  
  - **Schedule of Classes** .......................................................... 8  
  - **Enrollment Fees and Expenses** ....................................... 8  
  - **Refund of Fees** ..................................................................... 8  
  - **Cancelled Classes** .............................................................. 8  
  - **Student Obligations** ............................................................ 8  
- **Assessment and Placement** ................................................... 8-9  
  - **Placement Tests** ................................................................. 8  
  - **Placement Test and Eligibility Time Limits** ....................... 9  
  - **Test Scores and Placement from Other Colleges** ............... 9  
  - **Appeals Process** .................................................................. 9  
  - **Ability to Benefit** .............................................................. 9  
- **Orientation — Credit Students** ............................................... 9  
- **Counseling/Advisement** ....................................................... 9  
- **Exemption from Matriculation** ............................................. 9  

**SECTION 3 — Academic Policies and Requirements**

- **Attendance and Enrollment** ................................................. 11  
  - **Academic Freedom** ............................................................ 11  
  - **Attendance** .......................................................................... 11  
  - **Auditing Courses** .............................................................. 11  
  - **Dropping Courses and Withdrawing from the College** ....... 11  
  - **Student Unit Limits** ............................................................ 11  
  - **Repeatable Courses** ........................................................... 11  
  - **Repeating Courses Previously Passed** .................................. 11  
  - **Petitions for Exceptional Action** ....................................... 11  
  - **Limitations on Repeating Courses** ...................................... 11  
- **Catalog Rights** ....................................................................... 12  
- **Continuous Residence** ........................................................... 12  
- **Credits and Grades** ................................................................. 12-14  
  - **Definition of a Unit of Credit** ............................................. 12  
  - **Classification of Students** .................................................. 12  
  - **Grading System** ................................................................. 12  
  - **Incomplete** .......................................................................... 12  
  - **Final Examinations** ............................................................ 12  
  - **Early Examinations** .............................................................. 13  
  - **Pass/No Pass Grades** .......................................................... 13  
  - **Credit by Examination** ....................................................... 13  
  - **Advanced Placement Examinations in CSU General Education — Breadth Certification** ......................... 13  
  - **International Baccalaureate Credit for Mt. SAC General Education Requirements for the Associate Degree** .......... 14  
  - **Credit for Extra Institutional Learning** ................................ 14  
  - **Credit for Military Training** .................................................. 15  
- **Honors** .................................................................................. 15  
  - **Academic Honors** ............................................................... 15  
  - **Graduation Honors** ............................................................. 15  
  - **Honors Program** ............................................................... 15  
  - **Alpha Gamma Sigma** ........................................................... 15  
  - **Phi Theta Kappa** ................................................................. 15  
- **Academic Standards** ............................................................... 16  
  - **Probation and Dismissal** ...................................................... 16  
  - **Appeals Process** ............................................................... 16
Contents

Records ............................................................................................................ 16
  Definition of Educational Record .............................................................. 16
  Academic Renewal .................................................................................... 16
  Transcripts ................................................................................................ 16
  Challenge of Educational Records ............................................................. 16

SECTION 4 — Student Services and Student Life ........................................... 18–21
  Student Services ....................................................................................... 18
  Admissions and Records ........................................................................... 18
  Assessment Center .................................................................................... 18
  The Bridge Program .................................................................................. 18
  Bursar's Office and Photo ID ...................................................................... 18
  CalWORKs .................................................................................................. 19
  Career and Transfer Services .................................................................... 18
  Counseling Center ..................................................................................... 18
  Disabled Student Programs & Services (DSP&S) ........................................ 18
  CARE (Cooperative Agencies Resources for Education)............................ 19
  Extended Opportunity Programs & Services (EOPs) ................................. 19
  Financial Aid .............................................................................................. 19
  Student Health Services ........................................................................... 20
  International Student Programs ................................................................. 20
  First Year Experience ............................................................................... 20
  Re-Entry Services ..................................................................................... 20
  Veterans' Services ..................................................................................... 20
  Child Development Center ....................................................................... 21
  Security Escort Service ............................................................................. 21

Student Life .................................................................................................... 21
  Student Life Office ..................................................................................... 21
  Student Life Center ................................................................................... 21
  Student Government .................................................................................. 21
  Campus Clubs and Organizations .............................................................. 21

SECTION 5 — Instruction and Learning Resources ........................................ 23–24
  Instruction ................................................................................................ 23
  Distance Learning Program ...................................................................... 23
  Study Abroad Program ............................................................................. 23
  Work Experience Education ..................................................................... 23
  The Writing Center .................................................................................... 23
  Math Activities Resource Center ............................................................... 23
  Transfer Math Activities Resource Center ................................................. 23
  Tech Ed Resource Center ......................................................................... 24

Library and Learning Resources ................................................................. 24
  Learning Assistance Center ..................................................................... 24
  Library ....................................................................................................... 24
  Media Services .......................................................................................... 24

Computer Aided Graphics, Visual Arts and Design Programs ..................... 24
  Computer Programming, Computer Security, and Computer Servicing .... 25

SECTION 6 — Campus Facilities .................................................................... 27–28
  Campus Facilities ..................................................................................... 27
  Art Gallery ................................................................................................ 27
  Athletic Facilities ...................................................................................... 27
  Auxiliary Services ..................................................................................... 27
  Bookstore (SacBookRac) .......................................................................... 27
  Exercise Science/Wellness Center ............................................................ 27
  Farm .......................................................................................................... 27
  Food Services ............................................................................................ 27
  Convenience Stores .................................................................................. 27
  Performing Arts Center ........................................................................... 27
  Performing Arts Center Box Office ......................................................... 28
  Planetarium ............................................................................................... 28
  Radio Station and Cable TV Station ......................................................... 28
  Wildlife Sanctuary ..................................................................................... 28

SECTION 7 — Programs of Study Leading to a Certificate ............................ 29–62
  Programs of Study Leading to a Certificate ............................................. 29
  Listing by Certificates of Achievement .................................................... 30
  Listing by Skills Certificates ..................................................................... 31
  Certificates of Achievement ................................................................... 32–53
  Skills Certificates ...................................................................................... 54–62

SECTION 8 — Programs of Study Leading to an Associate Degree ............... 63–100
  Programs of Study Leading to an Associate Degree ................................ 64
  Application for Graduation ...................................................................... 64
  Multiple Degrees ....................................................................................... 64
  Residency Requirement ........................................................................... 64
  Graduation Requirements for either an Associate of Arts Degree (A.A.) or an Associate of Science Degree (A.S.) ........................................... 64
  Alphabetical Listing — Associate of Arts Degree (A.A.) ............................ 67
  Alphabetical Listing — Associate of Science Degree (A.S.) ....................... 68
  Listing by Instructional Division ............................................................... 68
  Alphabetical Listing — Associate of Arts Degree (A.A.) ............................ 96
2009-10 College Calendar

Fall 2009

July 4 Independence Day (campus closed)
July 6 International student admission application due for Fall Semester
July 22 Fall Semester Credit and Continuing Education registration opens

August 23 Residency determination date
August 24 Fall Semester begins

September 4 Last day to add a class
September 4 Last day to change residency for Fall Semester
September 7 Labor Day (campus closed)
September 11 Last day to withdraw without a “W” for 16-week classes
September 25 Last day to change grading option for 16-week classes

October 9 Last day to petition for Fall Semester graduation
October 30 Last day to withdraw from Fall Semester 16-week classes

November 5 International student application due for Winter Inter session
November 11 Veteran’s Day (campus closed)
November 18 Winter Intersession registration opens
November 26 - 29 Thanksgiving Recess (campus closed)

December 3 International student application due for Spring Semester
December 10 - 13 “Book Buy Back” at SacBookRac
December 10 - 13 Final Exams
December 13 Fall Semester ends
December 24 - January 3 Winter Recess for students
2009-10 College Calendar

Winter 2010

January 1, 2010  New Year’s Holiday (campus closed)
January 4  Winter Intersession begins
January 18  Martin Luther King, Jr. Day (campus closed)
January 19  Spring Semester Credit and Continuing Education registration opens

February 12  Lincoln’s Birthday (campus closed)
February 14  Winter Intersession ends
February 15  Washington’s Birthday (campus closed)

Spring 2010

February 19  Flex/Staff Development Day
February 22  Spring Semester begins

March 5  Last day to add a 16-week class
March 19  Last day to withdraw without a “W” for 16-week classes
March 31  Cesar Chavez Day of Observance (campus closed)
# 2009-10 College Calendar

## Spring 2010 (continued)

<table>
<thead>
<tr>
<th>Month</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>May 7</td>
<td>Last day to withdraw from Spring Semester</td>
</tr>
<tr>
<td>May 7</td>
<td>Last day to petition for Commencement</td>
</tr>
<tr>
<td>May 31</td>
<td>Memorial Day (campus closed)</td>
</tr>
<tr>
<td>June 7-13</td>
<td>Final Exams (see schedule in Spring Schedule of Classes)</td>
</tr>
<tr>
<td>June 11</td>
<td>Commencement</td>
</tr>
<tr>
<td>June 13</td>
<td>Spring Semester ends</td>
</tr>
</tbody>
</table>

## Summer 2010

<table>
<thead>
<tr>
<th>Month</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>June 28</td>
<td>Summer Intersession begins</td>
</tr>
<tr>
<td>July 4</td>
<td>Independence Day (campus closed)</td>
</tr>
<tr>
<td>August 8</td>
<td>Summer Intersession ends</td>
</tr>
</tbody>
</table>
**COLLEGE DIRECTORY**

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

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

| Academic Counselor for Student Athletes | 5929 |
| Academic Senate | 5436 |
| *Accounting & Management | 4909, 4910 |
| Advising | 4293 |
| Administrative Services | 4300 |
| Admissions & Records | 4415 |
| *Amenities & Transportation | 3098 |
| Affirmative Action | 4225 |
| *Agricultural Sciences | 4540 |
| *Air Conditioning & Welding | 5107, 4638 |
| *Aircraft Maintenance & Manufacturing | 4762, 4770 |
| *Alumni Association | 5943 |
| *American Language | 3432 |
| *Architecture & Design | 4803 |
| Art Gallery | 4328 |
| Arts Division | 5200 |
| Assessment Center | 4265 |
| Associated Students | 4526 |
| Athletics | 4630 |
| Auxiliary Services | 4470 |
| *Biological Sciences | 4013 |
| Bookstore (SacBookRac) | 4475 |
| *Biological Sciences | 4013 |
| Bridge Program | 5392 |
| Broadcast Services | 4274 |
| *Business Administration | 4612 |
| *Business Division | 6000 |
| Bursar’s Office | 4960 |
| CallWorks | 4755 |
| Campus Cafe | 4701 |
| Campus Security | 4555, 4299 |
| Career Placement Services | 4510 |
| Center of Excellence | 6106 |
| *Child Development | 4606 |
| Child Development Center | 4920 |
| *Commercial, Maintenance Arts | 4180 |
| Common Grounds Cafe | 4180 |
| *Communication | 6303 |
| *Continuing Education Division | 4220 |
| Continuing Education Center | 4845 |
| *Computer Information Systems | 4943, 4512 |
| *Consumer Science & Design Technologies | 4511 |
| Contract Education | 4310 |
| *Counseling & Advising Services | 4380, 4293 |
| CSEA 262 | 4413 |
| Custodial Services | 4796 |
| *Dance | 4635 |
| Disabled Student Programs & Services (DSP&S) | 4290 |
| Distance Learning | 3565 |
| *Earth Sciences & Astronomy | 4248 |
| *Electronics & Computer Technology | 4978, 5614 |
| *English, Literature & Journalism | 4706 |
| *ESL & Intercultural Programs | 4736 |
| Event Services | 4797 |
| Exercise Science/Wellness Center | 4625 |
| Express Stop | 4141 |
| Extramural Opportunity Programs & Services (EOPS) | 4500 |
| Facilities Planning & Management | 4850 |
| Faculty Association | 4531 |
| Farmington | 4850 |
| Financial Aid | 4450 |
| *Fine Arts | 4317 |
| *Fire Technology | 4724 |
| *Fiscal Services | 4274 |
| Foreign Languages | 5272, 5273 |
| Foundation Office | 4215 |
| Grants Office | 5418 |
| Grounds Service Requests | 4850 |
| *Health Careers Resource Center | 4788 |
| Health Center | 4400 |
| Help Desk (IT) | 4357 |
| High School Outreach | 5906 |
| *History, Art History, Geography, Political Science | 5269 |
| *History/Technology | 4894 |
| Honors Program | 4665 |
| Horticulture Unit | 4893 |
| *Humanities & Social Sciences Division | 4570 |
| Human Resources | 4250 |
| Information Technology | 4365 |
| Instruction Office | 4200 |
| KSAM Studio | 4105 |
| Language Learning Center | 4850 |
| *Learning Assistance Center | 4300 |
| Learning Lab | 5666 |
| Library | 4260 |
| *Library & Learning Resources Division | 5658 |
| Lost & Found (Student Life) | 4525 |
| Maintenance & Operations | 4850 |
| Marketing & Public Affairs Office | 4259 |
| *Mathematics, Computer Sciences | 4729, 4652 |
| Media Services | 4270 |
| Medical Services | 4656 |
| *Mental Health Technology | 4750 |
| Mountie Grill | 4624 |
| Mountie Stop | 4497 |
| Music | 4332 |
| *Natural Sciences Division | 4425 |
| *Noncredit Programs | 4220 |
| Nursing | 4660 |
| Office Technology | 4613 |
| Online Learning Support Center | 4378 |
| Parking Office | 4233 |
| Parking Services Cashier | 4299 |
| *Paralegal | 3015 |

Payroll | 4240
Performing Arts Center Box Office | (909) 468-4050, 4250
Performing Arts Operations | 5633
Photo Lab | 4906
*Physical Education Division | 6360
*Physical Therapy Aide | 4750
*Physics, Engineering | 4423
Planetarium Shows | 4524
President & Board of Trustees | 4250
Printing Services | 4235
Professional & Organizational Development | 4504
*Psychology, Education | 4446
*Psychiatric Technician | 4750
*Public Services | 4654
Purchasing | 4245
Quick Stop | 6216
*Radiologic Technology | 4750
Re-Entry Center | 4592
Regional Health Occupations Resource Center | 4215
*Registered Veterinary Technology | 4544
Registration | 4415
Research & Institutional Effectiveness | 5488, 4700
*Respiratory Therapy | 4750
Risk Management | 4230, 5588
SacBookRac | 4470
Security (Campus) | 4353
*Service Learning | 4656
Short Stop | 5424
*Sign Language | 4778
Small Business Development Center | (626) 337-2101
Small Business Development Center | 4544
*Social Work, Philosophy | 4591
Special Events | 4804
Student Health Administration | 4806
Student Ticket Office | 4889
Student Center | 5999
Student Life & Student Clubs | 4525
Student Services, Dean | 4525
Student Services, VP Office | 4505
*Student Services, VP Office | 4505
*Teacher Prep Institute | 4190
Technical Services | 4799
*Technology & Health Division | 4750
Technology Education Resource Center | 4597
*Theater | 4337
*Transfer Center | 6388
*Transfer Center | 6388
*Transfer Center | 6388
*Transfer Center | 6388
*Transfer Center | 6388
*Training Services | 6605
Upward Bound | 5634
Veterans’ Service Center | 4520
Warehouse | 4870
Wildlife Center | 4625
Wildlife Sanctuary Tours | 4794

* Instructional programs and departments
Section 1

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

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

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

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

**HISTORY**

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

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

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

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

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**MISSION, VISION AND VALUES**

**Mission**

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

**Vision**

It is the vision of Mt. San Antonio College:

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

---

**Core Values**

- **INTEGRITY**
  We treat each other honestly, ethically, and responsibly in an atmosphere of trust.

- **DIVERSITY**
  We respect and welcome all differences, and we foster equal participation throughout the campus community.

- **COMMUNITY BUILDING**
  We work in responsible partnerships through open communication, caring, and a cooperative spirit.

- **STUDENT FOCUS**
  We address the needs of students and the community in our planning and actions.

- **LIFELONG LEARNING**
  We promote the continuing pursuit of high educational goals through equal access to excellence in both teaching and support services.

- **POSITIVE SPIRIT**
  We work harmoniously, show compassion, and take pride in our work.
The College

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

ADMINISTRATION

Administrative Services .......................................... Ext. 4230
Vice President, Administrative Services ...................... Michael Gregory
Associate Vice President ........................................ Linda Baldwin
Administrative Director, Auxiliary Services .................. Jay Devers
Director, Auxiliary Services Accounting ...................... Sid Young
Director, Bookstore ................................................ Suzanne Luetjen
Director, Bursar's Office .......................................... Sheree Culross
Manager, Custodial Services ..................................... Ken McAlpin
Director, Facilities Planning and Management .............. Gary Nellesen
Assistant Director, Facilities, Planning and Management .... Becky Mitchell
Facilities Project Manager ......................................... Roger Sneed
Assistant Director, Fiscal Services .............................. Rosa Royle
Director, Food Services/Satellite Operations ................. Becky Carr
Director, Grounds and Transportation ......................... Carol Baker
Director, Maintenance ............................................ Vacant
Director, Payroll ................................................. Donna Evans
Director, Public Safety ........................................... Jeff Parker
Assistant Director, Public Safety ................................. Michael Montoya
Director, Purchasing ............................................. Tom Meikle
Director, Safety, Health Benefits, and Risk Management ... Karen Saldana
Director, Technical Services .................................... William Eastham

Human Resources .................................................. Ext. 4225
Interim Vice President, Human Resources ..................... Dr. Jack Miyamoto
Director, Human Resources .................................... Trinda Hoxie

Information and Educational Technology .................. Ext. 4357
Chief Technology Officer ................................. Victor Belinski
Director, Enterprise Applications Systems ................. Sheryl Hullings
Director, Academic Technology and Infrastructure .......... Dale Vickers
Assistant Director, Academic Technology and Infrastructure .................. Shanti Atashpoush

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

ADMINISTRATION (continued)

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

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Vice President, Student Services ......................... Dr. Audrey Yamagata-Noji
Dean, Counseling .................................................. Thomas Mauch
Associate Dean, Counseling .................................... Dr. Drella Foster
Dean, Student Services .......................................... Carolyn Keys
Dean, Enrollment Management ................................ Dr. George Bradshaw
Assistant Director, Admissions and Records ................ Patricia Monteoya
Director, Upward Bound ......................................... Juan Carlos Astorga
Coordinator, CallWorks/CARE ................................. Lorraine Williams
Director, Assessment and Matriculation ....................... James Ocampo
Director, Career and Transfer Services ....................... Heidi Lockhart
Director, Disabled Student Programs and Services (DSPS) .... Grace Hanson
**ADMINISTRATION (continued)**

Director, Extended Opportunity Programs and Services (EOPS) .......................... Irene Herrera  
Director, Financial Aid ................................................. Susan Jones  
Director, Health Services .................................................. Sandra Samples  
Director, Student Life ..................................................... Maryann Tolano-Leveque

**INSTRUCTIONAL DIVISIONS**

**Arts Division** Ext. 5200
Dr. Susan Long, Dean  
Rich Patterson, Associate Dean  
The Arts Division is composed of four departments: Art, Music, Commercial and Entertainment Arts, and Theater. The division sponsors numerous award-winning performance groups, houses an art gallery, and includes Studio Arts as well as Digital Arts and Radio and Television programs. The division sponsors student drama and music productions in the Performing Arts Center, oversees the Animation and Radio and television certificate programs, and monitors the college radio station, KSAX, as well as vocational degrees and certificates in Photography, Computer Graphics and Design for Interactive Visual Media. The division has performing groups that have competed internationally and have established top national and international ranking. For information relating to departments, programs, or events, contact the division office at ext. 5200.

**Business Division** Ext. 4600
John Heneise, Dean  
Meghan Chen, Dean  
The Business Division is composed of six educational departments, three economic and workforce development grants and one service area. The educational departments are: Accounting and Management, Business Administration (Paralegal Studies, Marketing, Sales, Real Estate and Economics), Computer Information Systems (Programming, Networking and Security), Child Development, Consumer Science and Design Technologies (Family & Consumer Sciences, Fashion Merchandising & Design, Hospitality and Restaurant Management, Interior Design and Nutrition & Food), and Office Technology. For additional information, contact the division at ext. 4600.  
The division also includes the services of the Child Development Center, with Janette Henry as the Director. For additional information, contact specific offices listed below.  
The division’s programs and services are designed to insure high quality education delivered in up-to-date facilities, meeting job requirements and the needs of the community.

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

**INSTRUCTIONAL DIVISIONS (continued)**

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

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

**Library and Learning Resources Division** Ext. 4260  
Meghan Chen, Dean  
Bailey Smith, Director, Learning Assistance Center  
The Library and Learning Resources Division includes Learning Assistance, Library, Media Services, Tutorial Services, and Distance Learning. Housed in the Learning Technology Center, the various departments provide support services for all students at the College.

**Departments**  
Distance Learning .......................... Ext. 5658  
Learning Assistance .............................................. Chair, Pat Bowler, Ext. 4304  
Library .............................................. Chair, Emily Woolery, Ext. 4264  
Media Services .............................................. Ext. 4270  
Tutorial Services .............................................. Ext. 6605
The Technology and Health Division provides 31 certificates and 31 degrees in occupational and vocational programs in the areas of technology, public services, and health care. The programs offer a variety of Associate in Science Degrees and certificates leading to job placement, transfer, and updating of skills. Programs offered in technology include Aeronautics, Air Conditioning and Refrigeration, Aircraft Maintenance, Architecture and Engineering Design, Electronics Technology, Travel, Water Technology, and Welding. The Public Services Programs include Fire Technology, Administration of Justice, Correctional Sciences, and Alcohol and Drug Counseling. Health Care Programs include Medical Services, Mental Health, Radiologic Technology, Respiratory Technology, and Nursing. The Associate Degree Nursing program provides quality preparation for students seeking a career as a Registered Nurse. Programs are driven by industry needs, and many are governed by State accrediting boards. In addition, the division includes The Regional Health Occupations Resource Center (RHORC) and the RHORC at ext. 6101. For additional information, contact the division at ext. 4750.

Physical Education Division

Deborah Blackmore, Dean/Athletic Director
Joseph Jennum, Director/Physical Education and Wellness Programs

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

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

Mt. SAC's five “world famous” annual athletic special events—the Mt. SAC Relays, Mt. SAC Cross Country Invitational, Footlocker Western Regional Cross Country Championship, LA84 Foundation Youth Days Program and the International Pole Vault Camp—reach over 100,000 participants, coaches and spectators, generating millions of dollars into the local economy.
Section 2

Matriculation Services:
Admissions and Registration
Assessment and Placement Orientation
Counseling/Advisement
Matriculation

ADMISSION AND REGISTRATION

Admissions

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

Application to the College

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

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

Residency Requirements (for fee purposes)

Residency Guidelines

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

Residence Classification

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

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

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

Criteria for Determination of Legal Residence

To determine a person’s place of residence, reference is made to the following:

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

Burden of Proof

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

Residence Classification Appeal

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

Concurrent Enrollment for K-12 Students (Special Admits)

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

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

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

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

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

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

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

College credit will be earned as a result of taking courses at Mt. San Antonio College and those grades will become part of the student’s permanent college record. High school credit may be possible at the discretion of the receiving high school. Please speak to your high school counselor.
### Articulation with High Schools, ROPs, and Adult Schools

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

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

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

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

### Required paperwork includes:
- **2+2 Articulation Equivalency Form**
- **High School Transcript**
- **ROP/Adult Education Certificate of Completion**

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

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

For more information on articulations with high schools, ROPs and adult schools, please contact the Tech Prep/Articulation Office, Bldg. 11A, at (909) 594-5611, ext. 5252.

### Admission of International Students

Mt. San Antonio College encourages applications from students holding or attempting to obtain the F-1 Visa. The following items are required from international applicants:
- Mt. SAC Application for Admission
- International (F-1 Visa) Student Application
- Application processing fee of $50.00 (U.S.)
- Confidential Financial support documents
- A “paper based” TOEFL score of at least 450, “computer based” TOEFL score of at least 133, or an Internet-based score of at least 45.
- Transcripts from high school and/or college attended
- TB (tuberculosis) test
- Proof of health insurance (prior to registration)

The following items are required for current F-1 Visa students transferring into Mt. SAC:
- Copy of I-20
- Copy of I-94
- Transfer form

The deadlines to apply for the 2009-10 school year are as follows:
- Summer 2009 — First Monday of April
- Fall 2009 — First Monday of June
- Winter 2010 — First Monday of November
- Spring 2010 — First Monday of December

F-1 Visa students can obtain all application materials from our College Website at [www.mtsac.edu](http://www.mtsac.edu). The Mt. Sac home page, click on “Apply or Register,” click on “Forms and Publications,” then click on “Application for International Students.” TOEFL scores, admissions application (both college and International Student Application), and all supporting materials must be received on or before the 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 application.
Matriculation

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

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

Enrollment Fees and Expenses
Students are charged an enrollment fee, a Health Services Fee, and for some classes Materials Fees for each semester at Mt. San Antonio College. These fees are subject to change. An optional Student Activities Fee is necessary. Because of facilities limitations, any class section or program will be closed as soon as enrollment has reached the maximum designated for that class or program.

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

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

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

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

- There is a processing fee of $25 for returned checks or stop payment of checks.
- Students having disciplinary obligations with the Student Life Office will not be allowed to transact College business until the obligation is met.

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

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

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

A. Eligible for English classes. Based on assessment results, students will be eligible for either ENGL 1A, 68, 67, or LERN 81.
B. Eligible for AMLA writing courses (designed for students who are not fluent in the English language). Students may enroll in AMLA writing courses and continue enrolling in AMLA writing courses until they are eligible for ENGL 67 or ENGL 68.
C. Eligible for ESL (English as Second Language) classes. Students may enroll in ESL adult education courses each semester until eligible for AMLA courses; then enroll in AMLA courses each semester until they are eligible for ENGL 67 or English 68.

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

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

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

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

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

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

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

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

EXEMPTION FROM ASSESSMENT

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

ORIENTATION – CREDIT STUDENTS

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

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

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

COUNSELING/ADVISEMENT

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

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

EXEMPTION FROM ORIENTATION AND COUNSELING/ADVISEMENT

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

PRE-COLLEGIATE BASIC SKILLS

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

PREREQUISITES, COREQUISITES, AND ADVISORIES

Faculty at Mt. SAC have established prerequisites, corequisites and advisories 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

Corequisites to a course that has a corequisite, the corequisite course must be taken concurrently. In some instances, a corequisite may have been taken previously.

Advisory

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

CHALLENGING PREREQUISITES AND COREQUISITES

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

- The prerequisite or corequisite has not been established in accordance with the College's process for establishing prerequisites and corequisites;
- The prerequisite or corequisite is in violation of State Title 5 regulations;
- The prerequisite or corequisite is either unlawfully discriminatory or is being applied in an unlawfully discriminatory manner;
- The student has the knowledge or ability to succeed in the course or program despite not meeting the prerequisite or corequisite;
- The student will be subject to undue delay in attaining the goal of his or her educational plan because the prerequisite or corequisite course has not been made reasonably available; or
- Such other grounds for challenge as may be established by the district governing board.

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

Academic Policies and Requirements
ACADEMIC FREEDOM

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

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

ATTENDANCE AND ENROLLMENT

Attendance

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

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

It is the student’s responsibility to officially drop a class whenever he or she determines that he or she can no longer attend the class.

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

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

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

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

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

Auditing Courses

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

Dropping Courses and Withdrawing from the College

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

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

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

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

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

Student Unit Limits

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

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

Repeatable Courses

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

Repeating Courses Previously Passed

State Regulations do not allow students to repeat non-repeatable courses previously passed with satisfactory grades of “A,” “B,” “C,” “Credit” or “Pass.”

Students with extenuating circumstances may file a Petition for Exceptional Action in the Admissions Office. Students who are allowed to repeat courses based on this provision will not earn additional units or grade points toward improving or changing the previous grade earned in the class or toward changing the overall grade point average.

Petitions for Exceptional Action

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

Limitations on Repeating Courses

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

Withdrawals without a mark of “W” are allowed during the first 3 weeks of a 16-week class in a semester or within the first 20 percent of a short-term course. Students shall be allowed a maximum of three withdrawals for a given course where a mark of “W” is posted for all three withdrawals. In cases in which the student’s grade and/or withdrawal was the result of an extenuating circumstance, students may file a petition to repeat a class an additional time (whether the prior enrollment was due to a substandard grade or a withdrawal.) Extenuating circumstances are verified accidents, illnesses or other circumstances beyond the control of the student. When course repetition is approved pursuant to this provision, the previous grade and credit earned (if any) shall be disregarded in computing the student’s grade point average each time the course is repeated.

Participation in an intervention program may be required.

Definitions

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

Continuing Student:

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

Section 3 11
### Academic Policies and Requirements

#### Catalog Rights

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

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

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

#### Continuous Residence

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

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

#### Credits and Grades

**Definition of a Unit of Credit**

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

**Classification of Students**

Students at Mt. San Antonio College are classified as follows:

- **Full-time** — enrolled in 12 or more units in a fall or spring semester, or four or more units during a six-week summer session.
- **Part-time** — enrolled in less than 12 units during the fall or spring semester or less than 4 units during a six-week session or less than nine units during a nine-week summer or winter session.
- **Freshman** — a student who has completed less than 30 units of credit.
- **Sophomore** — a student who has completed 30 units of credit or more.

#### Grading System

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

**Incomplete**

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

**IP — In Progress**

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

#### Grading Scale

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

**W — Withdrawal**

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

**MW — Military Withdrawal**

The “MW,” military withdrawal, mark shall be assigned only for students who are members of an active or reserve military unit, and who receive orders compelling a withdrawal from courses. Upon verification of such order, this symbol may be assigned at any time after the period established by the governing board during which no notation is made for withdrawals. The “MW” shall not be counted in determining registration priority, progress probation, and dismissal calculations. “In order to retain catalog rights, a student must re-apply for admission within one semester of completion of active duty.” A "W" previously incurred commencing January 1, 1990, and which meets the definition of “MW” may be changed to “MW.”

#### Final Examinations

A final examination shall be administered in all classes in compliance with the Final Exam Schedule prepared each semester. If a student is unable to attend a scheduled final examination, he/she must contact his/her instructor to make other arrangements. A student who does not take a final examination and who does not qualify for an “Incomplete” (see Grading-Incomplete), shall be assigned the grade “F” or “Zero” for the examination, and this grade shall be averaged in determining the final course grade. When a grade of “Incomplete” has been given, a copy of the final examination must be filed in the appropriate division office at the close of the semester.
Early Examinations

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

Pass/No Pass Grades

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

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

Credit by Examination

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

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

### Credit by Examination and such unit credit may be granted subject to

**Academic Policies and Requirements**

<table>
<thead>
<tr>
<th>Exam</th>
<th>COLLEGE CREDIT FOR ADVANCED PLACEMENT (AP) TESTS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>CSU GE Units</td>
</tr>
<tr>
<td>Art History</td>
<td>3 semester (Area C1 or C2)</td>
</tr>
<tr>
<td>Art (Studio)</td>
<td>N/A</td>
</tr>
<tr>
<td>Biology</td>
<td>4 semester (Area B2 and B3)</td>
</tr>
<tr>
<td>Calculus AB</td>
<td>3 semester (Area B4)</td>
</tr>
<tr>
<td>Calculus BC</td>
<td>3 semester (Area B4)</td>
</tr>
<tr>
<td>Chemistry</td>
<td>4 semester (Area B1 and B3)</td>
</tr>
<tr>
<td>Chinese Language &amp; Culture</td>
<td>3 semester (Area C2)</td>
</tr>
<tr>
<td>Computer Science A</td>
<td>N/A</td>
</tr>
<tr>
<td>Computer Science AB</td>
<td>N/A</td>
</tr>
<tr>
<td>Economics — Macroeconomics</td>
<td>3 semester (Area D2)</td>
</tr>
<tr>
<td>Economics — Microeconomics</td>
<td>3 semester (Area D2)</td>
</tr>
<tr>
<td>English — Language &amp; Composition</td>
<td>3 semester (Area A2)</td>
</tr>
<tr>
<td>English — Literature &amp; Composition</td>
<td>6 semester (Area B2 and C2)</td>
</tr>
<tr>
<td>Environmental Science</td>
<td>4 semester</td>
</tr>
<tr>
<td>French Language</td>
<td>3 semester (Area C2)</td>
</tr>
<tr>
<td>French Literature</td>
<td>3 semester (Area C2)</td>
</tr>
<tr>
<td>German Language</td>
<td>3 semester (Area C2)</td>
</tr>
<tr>
<td>Government &amp; Politics — Comparative</td>
<td>3 semester (Area 3B)</td>
</tr>
<tr>
<td>Government &amp; Politics — U.S.</td>
<td>3 semester (Area B8 and 4U)</td>
</tr>
<tr>
<td>History — European</td>
<td>3 semester (Area C2 or D6)</td>
</tr>
<tr>
<td>History — U.S.</td>
<td>3 semester (Area C2 or D6)</td>
</tr>
<tr>
<td>History — World</td>
<td>3 semester (Area C2 or D6)</td>
</tr>
<tr>
<td>Human Geography</td>
<td>3 semester (Area D5)</td>
</tr>
<tr>
<td>Italian Language &amp; Culture</td>
<td>3 semester (Area C2)</td>
</tr>
<tr>
<td>Japanese Language &amp; Culture</td>
<td>3 semester (Area C2)</td>
</tr>
<tr>
<td>Latin — Vergil</td>
<td>3 semester (Area C2)</td>
</tr>
<tr>
<td>Latin — Literature</td>
<td>3 semester (Area C2)</td>
</tr>
<tr>
<td>Music Theory</td>
<td>3 semester (Area C1)</td>
</tr>
<tr>
<td>Physics B</td>
<td>4 semester (Area B1 and B3)</td>
</tr>
<tr>
<td>Physics C — Mechanics</td>
<td>4 semester (Area B1 and B3)</td>
</tr>
<tr>
<td>Physics C — Magnetism</td>
<td>4 semester (Area B1 and B3)</td>
</tr>
<tr>
<td>Psychology</td>
<td>3 semester (Area D9)</td>
</tr>
<tr>
<td>Spanish Language</td>
<td>3 semester (Area C2)</td>
</tr>
<tr>
<td>Spanish Literature</td>
<td>3 semester (Area C2)</td>
</tr>
<tr>
<td>Statistics</td>
<td>3 semester (Area B4)</td>
</tr>
</tbody>
</table>

^Does not fulfill AHS/California Government requirement. Student can satisfy the AHS requirement after transfer.

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

**Maximum 8 quarter/5.3 semester units for both**

## Maximum 4 quarter/2.7 semester units for both

**Maximum one exam toward transfer

## ACADEMIC POLICIES AND REQUIREMENTS

### REQUIREMENTS

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**Section 3**

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2009-10_Section03 6/18/09 12:45 PM Page 13
**Academic Policies and Requirements**

**INTERNATIONAL BACCALAUREATE CREDIT FOR GENERAL EDUCATION REQUIREMENTS FOR THE ASSOCIATE DEGREE**

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

**Rules and Regulations**

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

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

**Advanced Placement Examinations in CSU General Education – Breadth Certification**

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

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

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

Students who have both a qualifying Advanced Placement (AP) test score (3 or above) and a qualifying IB certificate exam score (5 or above) in the same examination area, or who have completed a college level course for credit, will only have the first completion counted for credit. Both UC and CSU stipulate that IB students who complete an IB diploma are eligible to receive 30 units of credit towards graduation. These are unspecified units (electives) and do not meet specific general education requirements at the university. Mt. SAC will not honor such requests by diploma students. Only individual IB exams will be eligible to receive academic credit.

**Credit for Extra Institutional Learning**

Philosophical Basis

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

**General Policy Statement**

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

The College will accept the recommendations of the American Council on Education in reference to the guide to the Evaluation of Educational Experience Experiences in the Armed Forces and the National Guide to Credit Recommendation for Non-collegiate courses; the College Entrance Examination board in reference to its recommendation of Advanced Placement Examinations, and credit recommendations from other 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 completed 2.0 grade point average, not be on probation, and be in good standing.
- The academic record shall be annotated in such a manner to insure that a true and complete history of extra-institutional learning credit has been granted.
- In cases where a student is seeking a degree/certificate from the College, all standard graduation and residency requirements apply and must be met by completing a minimum of 12 units earned from Mt. SAC courses.

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

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

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

Graduation Honors
Graduation honors are awarded as follows:
Academic Distinction
The "Academic Distinction Honor" designation is placed on the transcript and degree of the graduate who has achieved an overall grade point average (GPA) of 4.00.
Scholastic Honor
The "Scholastic Honor" designation is placed on the transcript of the graduate who has achieved an overall grade point average (GPA) of 3.90 through 3.99.

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

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

Entrance Requirements
- High School Students — Eligibility for ENGL 1A, 1,000 composite SAT2, and a GPA of 3.0 or higher.
- Mt. San Antonio College Students — Nine transferable units; Eligibility for ENGL 1A, and 3.5 GPA.

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

For additional information about Mt. SAC’s Honors Program, contact the Vice President of Instruction at Ext. 5414 or the Honors Program Office at Ext. 4665.

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

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

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

Phi Theta Kappa
Mt. SAC sponsors the Alpha Omega Alpha Chapter of Phi Theta Kappa, an international scholastic honorary organization for America’s two-year colleges, including Canada, Germany, Puerto Rico, Panama and American Samoa. Eligibility for membership is established for the following:
1. Full and part-time students who have completed 12 appropriate degree units with a 3.5 grade point average at an accredited institution.
2. Students who have maintained a 3.5 grade point average while a member.

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

ACADEMIC STANDARDS

Probation and Dismissal

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

Academic Probation

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

Progress Probation

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

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

Clearing Probation

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

Probation and Dismissal Status

1. First Semester Probation
   a. Academic - occurs at the end of that first semester in which the student has attempted at least 12 units and has earned a cumulative grade point average below 2.0, or
   b. Progress - the cumulative percentage of all units in which the student has enrolled for which entries of “W,” “I” and “NP” are recorded reaches or exceeds fifty percent.
2. Second semester Probation
   a. Academic - occurs when the student in their consecutive semester continues to have a cumulative grade point average below 2.0, or
   b. Progress - continues to have a cumulative percentage of all units enrolled recorded as “W,” “I” and “NP” at fifty percent or higher.
3. Dismissal occurs after three consecutive semesters of Academic or Progress Probation. The student shall be dismissed for at least one semester. If the student has enrolled in the subsequent semester before the Dismissal status has been determined through the posting of the previous semester’s grades, the student may be dropped from all classes.

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

Appeal of Dismissal

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

Reinstatement after Dismissal

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

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

RECORDS

Definition of Educational Records

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

Academic Renewal

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

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

Transcripts

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

Challenge of Educational Records

1. Any student may file a written request with the Records Officer of the District (Dean, Enrollment Management) to remove information recorded in the student’s records which is alleged to be: 1) inaccurate; 2) an unsubstantiated personal conclusion or inference; 3) a conclusion or inference outside of the observer’s area of competence; or 4) not based on the personal observation of the named person with the time and place of the observation noted.
2. If the student is not satisfied with the determination made by the Dean, Enrollment Management, the student may utilize the existing college student grievance process (p. 259).
Student Services and Student Life

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

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

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

2. All registration is done online via the web at my.mtsac.edu. Registration instructions can be found in the latest Schedule of Classes or online at my.mtsac.edu.

3. Other services provided by Admissions and Records include maintaining student demographic information such as name, address, and Mt. SAC student identification numbers; maintaining student academic history, issuing I-20’s for International Students, processing Petitions for Exceptional Action, processing transcript and enrollment verification requests, processing graduation and certificate petitions and distributing diplomas and certificates. Admissions and Records is the official custodian of student records and maintains all permanent records and grade books received from faculty.

4. The Admissions and Records Office also provides the Student Services Kiosks located in the Student Services Building. These kiosks provide unofficial transcripts, final grades, and copies of the Permit to Register. All services available at the kiosk are also available at my.mtsac.edu. To use this service, students must have their Mt. SAC Student Identification number and Personal Identification Number (PIN).

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

1. Placement testing (English, Math, and Reading) measures students’ readiness for appropriate course placement.

2. Career Assessments measure student interests, abilities, work values, and experience to help students with career planning.

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

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

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

The Bridge Program is the right choice for students who find themselves undecided on career choices, who have apprehensions about the transition to college, and who would like to make new friends.

Bridge students share particular educational goals, common interests, and similar backgrounds.

As part of the Bridge Program, students can choose to be part of the Summer Bridge, English Bridge, Math Bridge, ASPIRE Bridge and/or the Pre-Nursing/Health Bridge.

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

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

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

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

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

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

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

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

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

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

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

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

If students have a current “Disabled Person” permit and placard or a “DP” license plate from the State of California Department of Motor Vehicles, they are not required to purchase a student parking permit. They are allowed to park in any parking space designated as
“handicapped parking,” any metered space (at no cost), or any time-limited space (without having to observe the time limit specified).

Students must ensure that the placard or license plate is displayed properly. DSP&S highly recommends that students visit our department to determine if there are any other services that may provide assistance while they attend Mt. San Antonio College.

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

**CalWORKs (California Work Opportunities and Responsibility to Kids)**

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

Support services include:
- education planning
- counseling
- case management
- tutoring
- personal development workshops
- job development/placement assistance
- advocacy
- liaison between student and GAIN Services Workers and Eligibility Worker at County Office
- payment for required books and supplies
- work-study*
- childcare*

*Based upon adequate funding

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

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

(See Extended Opportunity Programs and Services — EOPS)

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

Extended Opportunity Programs and Services (EOPS), located on the lower level of the Student Services Center, provides access to higher education for students with academic and financial disadvantages and the office of EOPS assists students seeking Re-Entry services as well as those who qualify for CARE. Some of the services offered are:
- Counseling
- Educational Planning
- Peer Advising
- Instructional Development and Services
- Tutoring
- Book Service Program
- Financial Assistance

To be eligible for the EOPS program, a student must:
- Be a California resident
- Be enrolled as a full-time student (12 units or more)
- Have fewer than 70 degree applicable units
- Qualify to receive a Board of Governors Enrollment Fee Waiver under Method A or B
- Be educationally disadvantaged

CARE (Cooperative Agencies Resources for Education) is a support program for EOPS students who are single head of household parents receiving CalWORKs — and provides additional assistance to students who are:
- Eligible for EOPS
- Enrolled in at least 12 units upon acceptance
- Currently receiving AFDC/TANF assistance, with at least one child under 14 years of age
- At least 18 years old, single head of household
- Have applied for financial aid and have a need for child care, transportation, books and supplies, and/or counseling to attend college
- Pursuing a program at Mt. SAC which will lead to a certificate, degree or transfer

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

### Financial Aid

**Student Services Center, Ext. 4450**

Financial aid is intended to help students who might not otherwise be able to attend college. Although the primary responsibility for meeting college costs rests with the student and his or her family, it is recognized that many families have limited resources and are unable to meet the cost of a college education. Financial aid programs have been established to provide assistance for students with documented financial need.

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

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

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

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

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

To be considered for financial aid, students must complete the Free Application for Federal Student Aid (FAFSA) or the renewal application.
Student Services and Student Life

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

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

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

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

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

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

Student Health Services Building 67B, Ext. 4400

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

International Student Programs

Student Services Center, Ext. 4415

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

First Year Experience, Ext. 5392

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

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

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

Re-Entry Services

Student Services Center, Ext. 4392

Veterns’ Services

Student Services Center, Ext. 4520

Veterans’ Services, located on the upper level of the Student Services Center, provides programs for Veterans and dependents seeking educational and/or vocational training under Title 38, United States Code. Veterans are urged to take advantage of the counseling service and educational programs offered by Mt. San Antonio College. The college cooperates with the Veterans’ Administration and with the California State Board and Vocational Rehabilitation in helping veterans.

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

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

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

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

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

Admission Policy
Early care and education services for children from birth through 5 are provided between the hours of 6:30 a.m. and 7:00 p.m., Monday through Thursday and 6:30 a.m. until 5 p.m. on Fridays for student/parent, staff, and community parents (community children on a space available basis only). The Child Development Center welcomes all children regardless of sex, ethnicity, religion, or physical handicap. A child must be in good health and parents must meet eligibility requirements. A student/parent must be enrolled in 6 or more units of credit coursework in order to be accepted into the program. Day time students have priority.

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

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

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

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

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

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

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

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

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

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

The Associated Students (AS) Government offices are located here as well as club mailboxes.
Section 5

Instruction and Learning Resources
**INSTRUCTION**

**Distance Learning Program**

What is Distance Learning?

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

Online Learning Classes:

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

Online-Supported (Hybrid) Classes:

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

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

**Study Abroad Program**

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

**Work Experience Education**

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

**Student Qualifications**

Students participating in Work Experience must:

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

**Credits**

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

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

The student enrolled in the work-experience program shall assume and comply with the following responsibilities:

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

**Instruction and Learning Resources**

**The Writing Center,**

**Building 26B, Rooms 100, 130, 131**

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

**Math Activities Resource Center (MARC),**

**Building 61, Room 1318**

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

**Transfer Math Activities Resource Center (T-MARC),**

**Building 61, Room 1314**

The T-MARC offers free math tutoring to Mt. SAC students currently enrolled in Math 100 and above. A variety of resources for in-lab use and for take-home use are available.
### Instruction and Learning Resources

**Tech Ed Resource Center (TERC), Building 28B, Room 108**

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

- Computer use
- Study groups
- Career workshops
- Printing capability
- Assessment testing
- Individualized Education Plans
- Applied activities
- And more!

For additional information, please contact TERC at ext. 4597.

### LIBRARY AND LEARNING RESOURCES

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

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

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

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

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

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

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

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

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

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### COMPUTER AIDED GRAPHICS, VISUAL ARTS AND DESIGN PROGRAMS

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

#### ARCHITECTURE & ENGINEERING DESIGN TECHNOLOGY DEPARTMENT

<table>
<thead>
<tr>
<th>Architectural Technology</th>
<th>A.S. Degree &amp; Certificates</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Prime Focus:</strong></td>
<td>This is both a professional and vocational program that offers the full range of design and technical aspects of architecture, preparing students for employment, skill upgrade or transfer to universities. The program utilizes conventional and current computer graphics/design applications.</td>
</tr>
<tr>
<td><strong>Job Market:</strong></td>
<td>Career opportunities include Architect, Architectural Designer, Drafter, CADD Operator, Model Builder, and Illustrator. (See Sections 7 and 8)</td>
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<table>
<thead>
<tr>
<th>Engineering Design Technology</th>
<th>A.S. Degrees &amp; Certificates</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Prime Focus:</strong></td>
<td>This course of study prepares students for Computer-Aided Design and Drafting careers in technical fields, including Engineering Drafting and Design Technologies in Electro Mechanical, Civil, and Mechanical Design. An A.S. Degree is offered in Engineering Design Technology and 3 level certificates.</td>
</tr>
<tr>
<td><strong>Job Market:</strong></td>
<td>The curriculum is designed to prepare students in computer-aided drafting and design (CADD) for careers in technical fields such as: Mechanical Design, Engineering, Engineering Technology, Manufacturing, Civil Design, and Aerospace. (See Sections 7 and 8)</td>
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#### COMMERCIAL AND ENTERTAINMENT ARTS DEPARTMENT

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<thead>
<tr>
<th>Advertising Design &amp; Illustration</th>
<th>A.S. Degree</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Prime Focus:</strong></td>
<td>Builds upon the traditional core art courses to provide students with basic skills and concepts utilized in the visual communication industries.</td>
</tr>
<tr>
<td><strong>Job Market:</strong></td>
<td>Advertising design skills are employed any time an image or graphic design needs to be generated for commercial usage.</td>
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<tr>
<th>Aesthetics for Technology</th>
<th>Certificate</th>
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<tbody>
<tr>
<td><strong>Prime Focus:</strong></td>
<td>Provides fundamental design skills and concepts related to art and technology-related industries.</td>
</tr>
<tr>
<td><strong>Job Market:</strong></td>
<td>Skills acquired in this program may be utilized in a variety of visual communication industries including Art, Advertising, and Multimedia.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Animation— (Traditional, 2-D, and 3-D Digital Animation)</th>
<th>A.S. Degree &amp; Certificates</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Prime Focus:</strong></td>
<td>An integrated program of Traditional and Digital Animation providing skills for the entertainment arts.</td>
</tr>
<tr>
<td><strong>Job Market:</strong></td>
<td>Supplies skills for a variety of entertainment arts careers including Traditional and Digital Animation, Motion Graphics, Gaming, Special Effects, and Web Animation.</td>
</tr>
</tbody>
</table>

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**See Sections 7 and 8**
### COMMERCIAL AND ENTERTAINMENT ARTS DEPARTMENT (CONT.)

**Web Page Design**

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

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

**Computer Graphic Design/Photography**

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

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

**Photography**

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

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

### COMPUTER PROGRAMMING, COMPUTER SECURITY, AND COMPUTER SERVICING

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

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

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

### COMPUTER INFORMATION SYSTEMS DEPARTMENT

**Computer Information Systems**

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

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

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


### ELECTRONICS & COMPUTER TECHNOLOGY DEPARTMENT

**Electronics and Computer Engineering Technology**

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

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

### MATHEMATICS DEPARTMENT

**Computer Science/Mathematics**

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

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

Campus Facilities
CAMPUS FACILITIES

Art Gallery
Building 1B, Ext. 4328
The Mt. San Antonio College Art Gallery has a long history of
outstanding Gallery Exhibitions highlighting prominent international
and national artists as well as its outstanding faculty and students.
The Gallery offers four to five exhibitions per year. Among these
are the Faculty Exhibition featuring the works of Mt. San Antonio
College faculty artists and the annual Student Exhibition featuring
student work from the fine arts, commercial arts, computer graphics,
and photography.

For information on Gallery Exhibition dates and times, contact
the Art Gallery office at (909) 594-5611, Ext. 4328.

Athletic Facilities, Ext. 4630
Hilmer Lodge Stadium, a 15,000-seat football and track facility, is
located in the southeast section of the College campus. This is the home
of the world famous “Mt. SAC Relays.” Other athletic facilities include
tennis courts, and volleyball courts, as well as a cross-country course,
baseball field, softball field, soccer field, a 1,470-seat gymnasium,
wrestling gym, strength-training facilities, an Olympic size swimming
pool, and an Exercise Science/Wellness Center.

Auxiliary Services, Building 9D, Ext. 4470
The Auxiliary Services/Accounting Office serves students, faculty, staff,
and the campus community. The following services are provided by
this office:

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

Bookstore (SacBookRac)
Building 9A, Ext. 4475
The bookstore, “SacBookRac,” is located in Building 9A on the north end
of the campus.

Students are encouraged to buy books early, especially if they are
interested in purchasing used books (first-come/first-served). In
addition to basic textbooks, general trade and paperback books,
sundries, greeting cards, soft goods, and gifts are also available.

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

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

Exercise Science/Wellness Center,
Building 27A, North Door, Ext. 4625
This modern, multi-dimensional facility offers health and lifestyle
screening; health, fitness, and performance physical fitness assessments;
all levels of aerobic exercise (including step aerobics); circuit/strength
training; and cardiorespiratory exercise.

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

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

Farm, Ext. 4540
The Farm, serving as a laboratory and as a supervised farm for students,
ofers an unrivaled opportunity for learning. Students interested in stock
breeding, veterinary science, agri-business, horse production, field crop
production, horticulture, floral design, or farm products may gain
valuable experience in these fields by working with their own animals
and crops while attending college. Contact the College’s Campus Events
office at Ext. 4794 for information on guided tours.

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

Campus Café
Building 8, Ext. 4105
The Campus Café, located on the west side of campus next to the
SacBookRac, features homemade, fresh cafeteria-style dining. Catering
is available for small meetings up to large banquets.

Common Grounds
Building 8, Ext. 4180
Common Grounds, located inside the Campus Café, features Starbucks
coffees, wireless Internet access, and Wednesday evening poetry
readings.

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

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

Mountie Stop
Building 9A, Ext. 4497
Express Stop
Building 16A, Ext. 4142
Quick Stop
Building 40, Ext. 6216
Prime Stop
Building 61
Short Stop
Building 66

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

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

The Sophia B. Clarke Theater is a formal 415-seat, full
proscenium theater that wraps the audience around a performance.
By providing a circular form and box seats at the perimeter, audience
intimacy with the stage is maximized. The stage and fly tower are at a
professional scale and contain equipment equal to the finest state-of
the-art theaters both regionally and internationally.
The Music Recital Hall provides for intimate musical performances. The Recital Hall is a 250-seat acoustical space richly articulated with reflective surfaces of maple wood and acoustical plaster; it is acoustically shaped with a 43' high ceiling. Sound reflectors above the stage further support acoustical distribution.

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

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

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

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

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

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

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

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

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

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

PROGRAMS OF STUDY LEADING TO A CERTIFICATE

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

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

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

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

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

Requirements for all certificates include the following:

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

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

Mt. San Antonio College also awards Certificates of Competency for certain non-credit programs of study. Information on these certificates may be found on pages 216-224.

CERTIFICATES OF ACHIEVEMENT

<table>
<thead>
<tr>
<th>Program</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSU General Education – Breadth</td>
<td>32</td>
</tr>
<tr>
<td>CSU General Education – Achievement</td>
<td>43</td>
</tr>
<tr>
<td>Accounting – General – Level III</td>
<td>39</td>
</tr>
<tr>
<td>Accounting – Small Business Management</td>
<td>39</td>
</tr>
<tr>
<td>Accounting – Financial Planning</td>
<td>39</td>
</tr>
<tr>
<td>Accounting – Teaching – Level III</td>
<td>39</td>
</tr>
<tr>
<td>Accounting – Computerized – Level III</td>
<td>40</td>
</tr>
<tr>
<td>Accounting – Managerial – Level III</td>
<td>40</td>
</tr>
<tr>
<td>Administrative Assistant Level II – Technology Level I</td>
<td>40</td>
</tr>
<tr>
<td>Administrative Assistant Level III – Technology Level II</td>
<td>40</td>
</tr>
<tr>
<td>Aircraft Powerplant Maintenance – Computer Graphics</td>
<td>40</td>
</tr>
<tr>
<td>Technology – Day – Design/Photography</td>
<td>40</td>
</tr>
<tr>
<td>Aircraft Powerplant Maintenance – Construction Inspection</td>
<td>40</td>
</tr>
<tr>
<td>Airframe Maintenance Technology – Day</td>
<td>41</td>
</tr>
<tr>
<td>Airframe Maintenance Technology – Evening</td>
<td>41</td>
</tr>
<tr>
<td>Airframe Maintenance Technology – Evening</td>
<td>41</td>
</tr>
<tr>
<td>Electronics – Managerial – Level III</td>
<td>41</td>
</tr>
<tr>
<td>Electronics – Computer Communications – Level II</td>
<td>41</td>
</tr>
<tr>
<td>Electronic Technology – Technology – Senior</td>
<td>41</td>
</tr>
<tr>
<td>Architectural Technology – Technology – Senior</td>
<td>41</td>
</tr>
<tr>
<td>Architectural Technology – Technology – Technology</td>
<td>41</td>
</tr>
<tr>
<td>Architectural Technology – Technology – Technology</td>
<td>41</td>
</tr>
<tr>
<td>Concentration Level II – Professional Designation</td>
<td>41</td>
</tr>
<tr>
<td>Escrow Management – Level III</td>
<td>44</td>
</tr>
<tr>
<td>Family Child Care – Level III</td>
<td>44</td>
</tr>
<tr>
<td>Fashion Design Level III – Level III</td>
<td>44</td>
</tr>
<tr>
<td>Fashion Merchandising – Level III – Level III</td>
<td>44</td>
</tr>
<tr>
<td>Fire Technology – Level III</td>
<td>45</td>
</tr>
<tr>
<td>Fire Technology – Level III</td>
<td>45</td>
</tr>
<tr>
<td>Horse Ranch Management – Level III</td>
<td>45</td>
</tr>
<tr>
<td>Hospitality – Catering – Level III</td>
<td>45</td>
</tr>
<tr>
<td>Hospitality – Catering – Level III</td>
<td>45</td>
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<tr>
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<tr>
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<td>45</td>
</tr>
</tbody>
</table>
### CERTIFICATES OF ACHIEVEMENT (continued)

<table>
<thead>
<tr>
<th>Program</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Landscape and Park Maintenance</td>
<td>47</td>
</tr>
<tr>
<td>Landscape Design and Construction</td>
<td>47</td>
</tr>
<tr>
<td>Landscape Equipment Technology</td>
<td>47</td>
</tr>
<tr>
<td>Landscape Irrigation</td>
<td>48</td>
</tr>
<tr>
<td>Law Enforcement</td>
<td>48</td>
</tr>
<tr>
<td>Legal Office Irrigation</td>
<td>48</td>
</tr>
<tr>
<td>Livestock Management</td>
<td>48</td>
</tr>
<tr>
<td>Marketing Management</td>
<td>48</td>
</tr>
<tr>
<td>Medical Office Specialist</td>
<td>49</td>
</tr>
<tr>
<td>Mental Health</td>
<td>50</td>
</tr>
<tr>
<td>Technology – Psychiatric Technician</td>
<td>49</td>
</tr>
<tr>
<td>Microcomputer Productivity Software</td>
<td>50</td>
</tr>
<tr>
<td>Nursing Management</td>
<td>50</td>
</tr>
<tr>
<td>Park Management</td>
<td>50</td>
</tr>
<tr>
<td>Pet Science</td>
<td>50</td>
</tr>
<tr>
<td>Photography</td>
<td>50</td>
</tr>
<tr>
<td>Programming in C++</td>
<td>50</td>
</tr>
<tr>
<td>Programming in Visual BASIC</td>
<td>50</td>
</tr>
<tr>
<td>Public Works/Landscape Management</td>
<td>51</td>
</tr>
<tr>
<td>Radio Broadcasting: Behind the Scenes</td>
<td>51</td>
</tr>
<tr>
<td>Radio Broadcasting: On the Air</td>
<td>51</td>
</tr>
<tr>
<td>Real Estate</td>
<td>51</td>
</tr>
<tr>
<td>Real Estate Appraisal</td>
<td>51</td>
</tr>
<tr>
<td>School Age Child – Specialization</td>
<td>52</td>
</tr>
<tr>
<td>Sign Language/Interpreting</td>
<td>52</td>
</tr>
<tr>
<td>Sports Turf Management</td>
<td>52</td>
</tr>
<tr>
<td>Theatrical Costumer</td>
<td>52</td>
</tr>
<tr>
<td>Tree Care and Maintenance</td>
<td>52</td>
</tr>
<tr>
<td>Water Technology</td>
<td>53</td>
</tr>
<tr>
<td>Web Page Design</td>
<td>53</td>
</tr>
<tr>
<td>Welser: Licensed</td>
<td>53</td>
</tr>
<tr>
<td>Welser: Automotive</td>
<td>53</td>
</tr>
<tr>
<td>Welser: Gas Tungsten ARC Welding</td>
<td>53</td>
</tr>
<tr>
<td>Welser: Licensed</td>
<td>53</td>
</tr>
<tr>
<td>Welser: Semiautomatic ARC Welding</td>
<td>53</td>
</tr>
<tr>
<td>Welser: Licensed</td>
<td>53</td>
</tr>
</tbody>
</table>

### SKILLS CERTIFICATES

<table>
<thead>
<tr>
<th>Program</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accounting – Bookkeeping</td>
<td>54</td>
</tr>
<tr>
<td>Accounting – Payroll</td>
<td>54</td>
</tr>
<tr>
<td>Administrative Assistant Level I</td>
<td>54</td>
</tr>
<tr>
<td>Art: Aesthetics for Technology</td>
<td>54</td>
</tr>
<tr>
<td>Athletic Trainer Aide I</td>
<td>54</td>
</tr>
<tr>
<td>Business: Human Resource</td>
<td>54</td>
</tr>
<tr>
<td>Business: International – Level I</td>
<td>54</td>
</tr>
<tr>
<td>Business: Management – Level I</td>
<td>54</td>
</tr>
<tr>
<td>Business: Retail Management – Level I</td>
<td>55</td>
</tr>
<tr>
<td>Business: Small Business</td>
<td>55</td>
</tr>
<tr>
<td>Management – Level I</td>
<td>55</td>
</tr>
<tr>
<td>Management – Level I</td>
<td>55</td>
</tr>
<tr>
<td>Business Workplace Competencies</td>
<td>55</td>
</tr>
<tr>
<td>Children’s Program</td>
<td>55</td>
</tr>
<tr>
<td>Certificate: General – Level I</td>
<td>55</td>
</tr>
<tr>
<td>Certificate: General – Level I</td>
<td>55</td>
</tr>
<tr>
<td>Certificate: General – Level I</td>
<td>55</td>
</tr>
<tr>
<td>Certificate: General – Level I</td>
<td>55</td>
</tr>
<tr>
<td>Certificate: General – Level I</td>
<td>55</td>
</tr>
<tr>
<td>CIS Professional Certificate in C# Programming</td>
<td>55</td>
</tr>
<tr>
<td>CIS Professional Certificate in Database Management – Microcomputers</td>
<td>55</td>
</tr>
<tr>
<td>CIS Professional Certificate in Java Programming</td>
<td>56</td>
</tr>
<tr>
<td>CIS Professional Certificate in LINUX</td>
<td>56</td>
</tr>
<tr>
<td>CIS Professional Certificate in LINUX</td>
<td>56</td>
</tr>
<tr>
<td>CIS Professional Certificate</td>
<td>56</td>
</tr>
<tr>
<td>CIS Professional Certificate in Networking</td>
<td>56</td>
</tr>
<tr>
<td>CIS Professional Certificate in Object-Oriented Design &amp; Programming</td>
<td>56</td>
</tr>
<tr>
<td>CIS Professional Certificate in SQL</td>
<td>56</td>
</tr>
<tr>
<td>CIS Professional Certificate in SQL</td>
<td>56</td>
</tr>
<tr>
<td>CIS Professional Certificate in Telecommunications</td>
<td>57</td>
</tr>
<tr>
<td>CIS Professional Certificate in Visual Basic Programming</td>
<td>57</td>
</tr>
<tr>
<td>CIS Professional Certificate</td>
<td>57</td>
</tr>
<tr>
<td>CIS Professional Certificate in Web Programming</td>
<td>57</td>
</tr>
<tr>
<td>CIS Professional Certificate in Windows Operating</td>
<td>57</td>
</tr>
<tr>
<td>CIS Professional Certificate in Web Programming</td>
<td>57</td>
</tr>
<tr>
<td>CIS Professional Certificate in Windows Operating</td>
<td>57</td>
</tr>
<tr>
<td>Coating Brighton</td>
<td>57</td>
</tr>
<tr>
<td>Culinary Arts – Level I</td>
<td>57</td>
</tr>
<tr>
<td>Data Entry</td>
<td>57</td>
</tr>
<tr>
<td>Educational Paraprofessional – Level I</td>
<td>57</td>
</tr>
<tr>
<td>Educational Paraprofessional – Level I</td>
<td>57</td>
</tr>
<tr>
<td>Electronic Assembly and Fabrication</td>
<td>57</td>
</tr>
<tr>
<td>Electronic Assembly and Fabrication</td>
<td>57</td>
</tr>
<tr>
<td>Electronic Systems Technology – Level I</td>
<td>58</td>
</tr>
<tr>
<td>Electronic Systems Technology – Level I</td>
<td>58</td>
</tr>
<tr>
<td>Emergency Medical Technician – Level I</td>
<td>58</td>
</tr>
<tr>
<td>Emergency Medical Technician – Level I</td>
<td>58</td>
</tr>
<tr>
<td>Fashion Design – Computer Aided</td>
<td>58</td>
</tr>
<tr>
<td>Fashion Design – Computer Aided</td>
<td>58</td>
</tr>
<tr>
<td>Fashion Merchandising – Level I</td>
<td>58</td>
</tr>
<tr>
<td>Fire Administration</td>
<td>59</td>
</tr>
<tr>
<td>Fire Administration</td>
<td>59</td>
</tr>
<tr>
<td>Foster Care</td>
<td>59</td>
</tr>
<tr>
<td>Foster Care</td>
<td>59</td>
</tr>
<tr>
<td>Gallery Design/Operation and Art Profession</td>
<td>59</td>
</tr>
<tr>
<td>Geographic Information Systems</td>
<td>59</td>
</tr>
<tr>
<td>Geographic Information Systems</td>
<td>59</td>
</tr>
<tr>
<td>Hospitality; Food Services</td>
<td>59</td>
</tr>
<tr>
<td>Hospitality; Food Services</td>
<td>59</td>
</tr>
<tr>
<td>Hospitality; Hospitality</td>
<td>60</td>
</tr>
<tr>
<td>Hospitality; Hospitality</td>
<td>60</td>
</tr>
<tr>
<td>Hospitality; Restaurant</td>
<td>60</td>
</tr>
<tr>
<td>Hospitality; Restaurant</td>
<td>60</td>
</tr>
<tr>
<td>Information and Operating Systems Security</td>
<td>60</td>
</tr>
<tr>
<td>Information and Operating Systems Security</td>
<td>60</td>
</tr>
<tr>
<td>Introduction to Computer</td>
<td>60</td>
</tr>
<tr>
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<td>60</td>
</tr>
<tr>
<td>Information Technology</td>
<td>60</td>
</tr>
<tr>
<td>Information Technology</td>
<td>60</td>
</tr>
<tr>
<td>LVM 3 Unit Option – Career Mobility Track</td>
<td>61</td>
</tr>
<tr>
<td>Machine Operator</td>
<td>61</td>
</tr>
<tr>
<td>Machine Operator</td>
<td>61</td>
</tr>
<tr>
<td>MasterCAM</td>
<td>61</td>
</tr>
<tr>
<td>MasterCAM</td>
<td>61</td>
</tr>
<tr>
<td>Nutrition Program Assistant – Level I</td>
<td>61</td>
</tr>
<tr>
<td>Nutrition Program Assistant – Level I</td>
<td>61</td>
</tr>
<tr>
<td>Nutrition Program Assistant – Level II</td>
<td>61</td>
</tr>
<tr>
<td>Nutrition Program Assistant – Level II</td>
<td>61</td>
</tr>
<tr>
<td>Nutrition Program Assistant – Level II</td>
<td>61</td>
</tr>
<tr>
<td>Child Program Emphasis</td>
<td>61</td>
</tr>
<tr>
<td>Weight Management Program Emphasis</td>
<td>61</td>
</tr>
<tr>
<td>Weight Management Program Emphasis</td>
<td>61</td>
</tr>
<tr>
<td>Parametric Solid Modeling</td>
<td>62</td>
</tr>
<tr>
<td>Parametric Solid Modeling</td>
<td>62</td>
</tr>
<tr>
<td>SurICAM</td>
<td>62</td>
</tr>
<tr>
<td>SurICAM</td>
<td>62</td>
</tr>
<tr>
<td>Welding</td>
<td>62</td>
</tr>
<tr>
<td>Welding</td>
<td>62</td>
</tr>
<tr>
<td>Accounting – Payroll</td>
<td>54</td>
</tr>
<tr>
<td>Accounting – Payroll</td>
<td>54</td>
</tr>
<tr>
<td>Administrative Assistant Level I</td>
<td>54</td>
</tr>
<tr>
<td>Administrative Assistant Level I</td>
<td>54</td>
</tr>
<tr>
<td>Art: Aesthetics for Technology</td>
<td>54</td>
</tr>
<tr>
<td>Art: Aesthetics for Technology</td>
<td>54</td>
</tr>
<tr>
<td>Athletic Trainer Aide I</td>
<td>54</td>
</tr>
<tr>
<td>Athletic Trainer Aide I</td>
<td>54</td>
</tr>
<tr>
<td>Business: Human Resource</td>
<td>54</td>
</tr>
<tr>
<td>Business: Human Resource</td>
<td>54</td>
</tr>
<tr>
<td>Business: International – Level I</td>
<td>54</td>
</tr>
<tr>
<td>Business: International – Level I</td>
<td>54</td>
</tr>
<tr>
<td>Business: Management – Level I</td>
<td>54</td>
</tr>
<tr>
<td>Business: Management – Level I</td>
<td>54</td>
</tr>
<tr>
<td>Business: Retail Management – Level I</td>
<td>55</td>
</tr>
<tr>
<td>Business: Retail Management – Level I</td>
<td>55</td>
</tr>
<tr>
<td>Business: Small Business</td>
<td>55</td>
</tr>
<tr>
<td>Business: Small Business</td>
<td>55</td>
</tr>
<tr>
<td>Management – Level I</td>
<td>55</td>
</tr>
<tr>
<td>Management – Level I</td>
<td>55</td>
</tr>
</tbody>
</table>
Programs of Study Leading to a Certificate

CERTIFICATES OF ACHIEVEMENT

CSU General Education Breadth

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

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

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

Intersegmental General Education Transfer Curriculum (IGETC)

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

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

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

<table>
<thead>
<tr>
<th>Programs of Study Leading to a Certificate</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Accounting</strong></td>
</tr>
<tr>
<td>Accounting and Management Department</td>
</tr>
<tr>
<td>Certificate T0502</td>
</tr>
<tr>
<td>The Accounting Certificate incorporates various accounting courses that prepare the student for entry-level positions and/or professional advancement in a wide variety of accounting jobs. These jobs include general accounting, cost accounting, payroll, inventory management, asset management, and credit and collections, financial analysis, etc.</td>
</tr>
<tr>
<td><strong>Requirements for the Certificate</strong></td>
</tr>
<tr>
<td><strong>Completion of the Accounting: Financial Planning Certificate (21 Units) or Accounting: Managerial Certificate (19 Units) as follows:</strong></td>
</tr>
<tr>
<td>BUSA 7 Principles of Accounting</td>
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<tr>
<td>5.0 CSU,UC</td>
</tr>
<tr>
<td>or</td>
</tr>
<tr>
<td>BUSA 21 Cost Accounting</td>
</tr>
<tr>
<td>4.0</td>
</tr>
<tr>
<td>3.0</td>
</tr>
<tr>
<td>BUSA 75 Using Microcomputers in Financial Accounting</td>
</tr>
<tr>
<td>1.0</td>
</tr>
<tr>
<td>BUSA 81 Work Experience in Accounting</td>
</tr>
<tr>
<td>1.0</td>
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<tr>
<td>BUSO 25 Business Communications</td>
</tr>
<tr>
<td>3.0 CSU</td>
</tr>
</tbody>
</table>

**Total Units:** 30.0 - 32.0

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

**Requirements for the Certificate**

**Completion of the Accounting - Managerial Accounting Certificate L0599**

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

**Requirements for the Certificate**

**Required courses:**

| BUSA 7 Principles of Accounting | 5.0 | 5.0 |
| BUSA 8 Principles of Accounting | 5.0 | 5.0 |
| BUSA 58 Federal Income Tax Law | 3.0 | 3.0 |
| BUSA 76 Using Microcomputers in Managerial Accounting | 1.0 | 1.0 |
| BUSA 81 Work Experience in Accounting | 1.0 | 1.0 |
| BUSO 25 Business Communications | 3.0 | 3.0 |

**Total Units:** 21.0

**Accounting - Computerized**

**Accounting and Management Department Certificate L0503**

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

**Requirements for the Certificate**

**Required courses:**

| BUSA 7 Principles of Accounting | 5.0 | 5.0 |
| BUSA 53 Ten-Key Calculations | 2.0 | 2.0 |
| BUSA 81 Work Experience in Accounting | 1.0 | 1.0 |
| BUSO 5 Business Communications | 3.0 | 3.0 |
| BUSO 25 Business Communications | 3.0 | 3.0 |

**Total Units:** 18.5 - 19.5

**Accounting - Financial Planning**

**Accounting and Management Department Certificate L0599**

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

**Requirements for the Certificate**

**Required courses:**

| BUSA 7 Principles of Accounting | 5.0 | 5.0 |
| BUSA 8 Principles of Accounting | 5.0 | 5.0 |
| BUSA 58 Federal Income Tax Law | 3.0 | 3.0 |
| BUSA 76 Using Microcomputers in Managerial Accounting | 1.0 | 1.0 |
| BUSA 81 Work Experience in Accounting | 1.0 | 1.0 |
| BUSO 25 Business Communications | 3.0 | 3.0 |

**Total Units:** 21.0

| CISB 11 Computer Information Systems | 3.5 | 3.5 |
| CISB 13 Microsoft Windows | 2.0 | 2.0 |
| CISB 21 Microsoft Excel | 4.0 | 4.0 |
| CISW 11 Introduction to Internet Technologies | 4.0 | 4.0 |
| COMP 11 Internet Research for Business | 2.0 | 2.0 |
| COMP 20 Microsoft Word | 4.0 | 4.0 |

**Total Units:** 18.5 - 19.5

| CBUS 21 Cost Accounting | 4.0 | 4.0 |
| CBUS 75 Using Microcomputers in Financial Accounting | 1.0 | 1.0 |
### Programs of Study Leading to a Certificate

#### Administrative Assistant - Level II

**Office Technology Department**

**Certificate L0514**

The Level II Certificate prepares students for clerical positions where office organization and transcription skills are needed.

**Requirements for the Certificate**

**Required courses:**
- Completion of the Administrative Support - Level I course work (10.5 - 11 units) as follows:
  - BUSO 5 Business English 3.0
  - COMP 1 Computer Keyboarding 4.0 CSU
  - COMP 1A Computer Keyboarding 2.0 CSU
  - COMP 1B Computer Keyboarding 2.0 CSU
  - COMP 12 Office Computer Applications 4.0 CSU,UC
  - CISB 15 Microcomputer Applications 4.0 CSU,UC
  - COMP 28 Office Management Skills 3.0 CSU

**Plus the following courses:**
- BUSO 25 Business Communications 3.0 CSU
- COMP 2 Intermediate Computer Keyboarding 4.0
- COMP 20 Word for the Business Professional 4.0
- COMP 68 Transcription Techniques 3.0

**Total Units 28.0**

#### Administrative Assistant - Level III

**Office Technology Department**

**Certificate T0517**

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

**Requirements for the Certificate**

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

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

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

**Total Units 43.5 - 46.5**

#### Air Conditioning and Refrigeration & Welding Technologies

**Certificate T0909**

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

**Requirements for the Certificate**

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

**Total Units 37.5**

#### Aircraft Powerplant Maintenance Technology - Day

**Aircraft Maintenance Technician & Manufacturing Technology**

**Certificate T0982**

This program prepares students to enter employment as a certified powerplant technician in the aircraft maintenance industry. Training is given in the overhaul of various powerplants and their components. Completion of this program leads to an Associate of Science Degree or a Certificate.

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

**Required courses:**
- AIRM 65A Aircraft Powerplant 13.0 CSU
- AIRM 65B Aircraft Powerplant 13.0
- AIRM 70A Aircraft Maintenance Electricity 3.0
  - and Electronics
- AIRM 70B Aircraft Maintenance Electricity 3.0
  - and Electronics
- AIRM 71 Aviation Maintenance Science 6.0
- AIRM 72 Aviation Materials and Processes 1.5
- AIRM 73 Airframe and Powerplant 1.5

**Total Units 41.0**

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

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**Note:**

This program offers a day (full-time) or evening (part-time) program option. The only difference between the two options is the course numbering and time required to complete the program. Day program courses AIRM 65A and 65B are equivalent to evening program courses AIRM 95A, 95B, 96A, 96B, 97A, 97B, 98A, and 98B. Day program courses AIRM 66A and 66B and 66C are equivalent to evening program courses AIRM 99A, 99B, 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.
PROGRAMS OF STUDY LEADING TO A CERTIFICATE

AIRCRAFT POWERPLANT MAINTENANCE TECHNOLOGY - DAY
AIRCRAFT MAINTENANCE TECHNICIAN & MANUFACTURING TECHNOLOGY
Certificate T0991

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

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

Recommended Electives:
AIRM 12 Technical Engineering Drawing II
ELEC 90 Survey of Electronics
MFG 70 Technical Mathematics - Manufacturing Applications
PHYS 1 Physics

Requirements for the Certificate

Required courses:
AIRM 70A Aircraft Maintenance Technology 3.0
AIRM 90A Aircraft Maintenance Technology 3.0
AIRM 91A Aircraft Maintenance Technology 3.0
AIRM 92A Aircraft Maintenance Technology 3.0
AIRM 93A Aircraft Maintenance Technology 3.0
AIRM 95B Aircraft Powerplant Maintenance Technology 3.0
AIRM 96B Aircraft Powerplant Maintenance Technology 3.0
AIRM 97B Aircraft Powerplant Maintenance Technology 3.0
AIRM 98A Aircraft Powerplant Maintenance Technology 3.0
AIRM 98B Aircraft Powerplant Maintenance Technology 3.0

Total Units 39.0

Airframe Maintenance Technology - Evening
AIRCRAFT MAINTENANCE TECHNICIAN & MANUFACTURING TECHNOLOGY
Certificate T0992

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

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

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

Requirements for the Certificate

Required courses:
AIRM 66A Airframe Maintenance Technology 3.0 CSU
AIRM 66B Airframe Maintenance Technology 3.0
AIRM 70A Aircraft Maintenance Technology 3.0
AIRM 70B Aircraft Maintenance Technology 3.0
AIRM 71 Aircraft Maintenance Science 6.0
AIRM 72 Aircraft Materials and Processes 1.5
AIRM 73 Aircraft Welding 1.5
AIRM 74 Aircraft Maintenance Technology - Work Experience
AIRM 80 Lab Studies in Aircraft Maintenance Technology
ELEC 90 Survey of Electronics
MFG 70 Technical Mathematics - Manufacturing Applications
PHYS 1 Physics

Total Units 41.0

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

Requirements for the Certificate

Required courses:
AIRM 70A Aircraft Maintenance Technology 3.0
AIRM 70B Aircraft Maintenance Technology 3.0
AIRM 71 Aircraft Maintenance Science 6.0
AIRM 72 Aircraft Materials and Processes 1.5
AIRM 73 Aircraft Welding 1.5
AIRM 74 Aircraft Maintenance Technology - Work Experience
AIRM 80 Lab Studies in Aircraft Maintenance Technology
ELEC 90 Survey of Electronics
MFG 70 Technical Mathematics - Manufacturing Applications
PHYS 1 Physics

Total Units 41.0

Recommended Electives:
AIRM 74 Aircraft Maintenance Technology - Work Experience
ELEC 90 Survey of Electronics
MFG 70 Technical Mathematics - Manufacturing Applications
PHYS 1 Physics

Transferability of courses.
Alcohol/Drug Counseling
Public Services Department
Certificate T2101
Upon completion of the required courses with a grade of "C" or better, a Certificate in Alcohol/Drug Studies will be awarded by the Technology and Health Division.

Requirements for the Certificate
Required core courses:
AD 1 Alcohol/Drug Dependency 3.0 CSU
AD 2 Physiological Effects of Alcohol/Drugs 3.8 CSU
AD 3 Chemical Dependency: Intervention, Treatment and Recovery 3.0 CSU
AD 4 Issues in Domestic Violence 3.0
AD 5 Chemical Dependency: Prevention and Education 1.5 CSU
AD 6 Dual Diagnosis 3.0 CSU

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

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

Recommended Electives:
AD 107 Figure in Motion 3.0
AD 109 Advanced Principles of Animation 3.0
AD 110 Honors 3.0
AD 119 Portfolio 3.0

ANIM 101 Drawing - Gesture and Figure 3.0 CSU
ANIM 104 Drawing Fundamentals 3.0 CSU
ANIM 108 Principles of Animation 3.0 CSU
ANIM 115 Storyboarding 3.0
ANIM 116 Character Development 1.5
ANIM 119 Portfolio 1.5

ARTC 66 Portfolio 3.0
ARTC 74 Computer Graphics: Web Design 3.0 CSU
ARTC 70 Computer Graphics: Introduction 3.0 CSU
ARTD 17A Drawing: Life 3.0 CSU,UC

Total Units 33.0 - 34.5

Recommended Electives:
ARTD 16 Drawing: Perspective 3.0
ARTD 20 Design: Two Dimensional 3.0
PHOT 10 Beginning Photography 3.0

Animation - Digital 2-Dimensional
Commercial and Entertainment Arts
Certificate T1011
The Digital 2-D Certificate provides training for creative careers that integrate animation with video, audio, graphics and special effects for Websites, broadcast, film, presentation or mobile content.

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

Requirements for the Certificate
Required courses:
ANIM 101 Drawing - Gesture and Figure 3.0 CSU
ANIM 104 Drawing Fundamentals 3.0 CSU
ANIM 108 Principles of Animation 3.0 CSU
ANIM 115 Storyboarding 3.0
ANIM 116 Character Development 1.5
ANIM 130 Introduction to 3-D Computer Animation 3.0
ANIM 132 Modeling, Texture Mapping and Lighting 3.0
ANIM 134 Visual Effects 1: Dynamics 1.5

ARTD 20 Design: Two Dimensional 3.0
PHOT 10 Beginning Photography 3.0

Recommended Electives:
ARTD 16 Drawing: Perspective 3.0
ARTD 20 Design: Two Dimensional 3.0
ARTS 41A Sculpture: Life 3.0
PHOT 10 Beginning Photography 3.0

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

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

Requirements for the Certificate
Required courses:
ANIM 101 Drawing - Gesture and Figure 3.0 CSU
ANIM 104 Drawing Fundamentals 3.0 CSU
ANIM 108 Principles of Animation 3.0 CSU
ARTD 17A Drawing: Life 3.0 CSU,UC

Recommended Electives:
ANIM 101 Drawing - Gesture and Figure 3.0 CSU
ANIM 104 Drawing Fundamentals 3.0 CSU
ANIM 108 Principles of Animation 3.0 CSU
ANIM 130 Introduction to 3-D Computer Animation 3.0
ANIM 132 Modeling, Texture Mapping and Lighting 3.0
ANIM 134 Visual Effects 1: Dynamics 1.5

ANIM 135 Visual Effects II: Particle Systems 1.5
ANIM 136 Animation Environment Layout 3.0
ANIM 145 Advanced 3-D Modeling 3.0
ANIM 146 3-D Animation 3.0
ANIM 148 Demo-Reel 1.5
ARTC 70 Computer Graphics: Introduction 3.0 CSU

Total Units 39.0

Recommended Electives:
ANIM 107 Figure in Motion 3.0
ANIM 109 Advanced Principles of Animation 3.0
ANIM 119 Portfolio 3.0

ANIM 103 Drawing - Gesture and Figure 3.0
ANIM 104 Drawing Fundamentals 3.0
ANIM 108 Principles of Animation 3.0
ANIM 130 Introduction to 3-D Computer Animation 3.0
ANIM 132 Modeling, Texture Mapping and Lighting 3.0
Programs of Study Leading to a Certificate

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

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

Requirements for the Certificate

Required courses:
Completion of the Architectural Technology Level I course work (21) units.
PLUS

- ARCH 14 Building and Zoning Codes 3.0
- ARCH 15 Architectural Working Drawings - I 3.0
- ARCH 18 Architectural Computer Aided Design Elements 3.0
- ARCH 20 Architectural CAD Working Drawings 3.0
- EDIT 20 Technical Descriptive Geometry 3.0
- INSP 70 Elements of Construction 3.0

Select one (1) course from:

- PHYS 1 Physics 4.0 CSU,UC
- PHYS 2AG General Physics 4.0 CSU,UC

Total Units 50.0 - 52.0

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

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

Requirements for the Certificate

Required courses:
Completion of the Architectural Technology Level I course work (21) units.
PLUS

- ARCH 13 Architectural Illustration 3.0 CSU,UC
- ARCH 21 Design II - Architectural Design 3.0 CSU,UC

Total Units 51.0

Architectural Technology - Technology Concentration Level III
Architecture and Engineering Design Department
Certificate T0206

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

Requirements for the Certificate

Required courses:
Completion of the Architectural Technology Design Concentration course work (42) units.
PLUS

- ARCH 27 Design III - Environmental Design 3.0 CSU,UC
- ARCH 29 Design IV - Advanced Project 3.0 CSU

Total Units 42.0

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

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

Requirements for the Certificate

Required courses:
Completion of the Architectural Technology Level I course work (21) units.
PLUS

- ARCH 13 Architectural Illustration 3.0 CSU,UC
- ARCH 21 Design II - Architectural Design 3.0 CSU,UC

Total Units 51.0
Programs of Study Leading to a Certificate

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

*Accounting and Management Department*  
Certificate L0534

This certificate builds upon the Level I Certificate to provide students with specific knowledge of human resource management functions. HR law, compensations systems, and an understanding of human motivation provide the student with a solid foundation from which to build a career in human resources. Completion of the Business: Human Resource Management - Level I course work (9 Units).

**Requirements for the Certificate**

**Required courses:**  
Level I as follows:
- BUSM 20 Principles of Business 3.0 CSU,UC  
- BUSM 61 Business Organization 3.0 CSU  
- BUSM 62 Human Resource Management 3.0

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

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

**Total Units:** 18.0

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

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

*Accounting and Management Department*  
Certificate L0535

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

**Requirements for the Certificate**

**Required courses:**
- Completion of Human Resource Management - Level I and
- Level II course work (18 Units) as follows:
  - BUSM 20 Principles of Business 3.0 CSU,UC  
  - BUSM 51 Principles of International Business 3.0 CSU  
  - BUSM 66 Small Business Management 3.0 CSU

**Plus:**
- BUSM 66 Small Business Management 3.0 CSU

**Required courses:**
- BUSM 20 Principles of Business 3.0 CSU,UC  
- BUSM 51 Principles of International Business 3.0 CSU  
- BUSM 66 Small Business Management 3.0 CSU

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

**Total Units:** 18.0 - 19.0

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

**Business: International - Level II**

*Accounting and Management Department*  
Certificate L0552

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

**Requirements for the Certificate**

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

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

**Plus:**
- BUSM 66 Small Business Management 3.0 CSU

**Select one (1) course from:**
- BUSO 25A Business Communications A 1.5 CSU  
- BUSO 25B Business Communications B 1.5 CSU

**Total Units:** 27.0 - 28.0

**Recommended Electives:**
- BUSM 50 World Culture: A Business Perspective 3.0 CSU,UC  
- ANTH 22 General Cultural Anthropology 3.0 CSU,UC  
- BUSM 52 Principles of Exporting and Importing 3.0 CSU

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

**Business: Management - Level II**

*Accounting and Management Department*  
Certificate L0586

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

**Requirements for the Certificate**

**Required courses:**
- Completion of Business: Management Level I course work (9 Units) as follows:
  - BUSM 20 Principles of Business 3.0 CSU,UC  
  - BUSM 51 Principles of International Business 3.0 CSU  
  - BUSS 36 Principles of Marketing 3.0 CSU

**Required courses:**
- BUSM 61 Business Organization and Management 3.0 CSU  
- BUSM 66 Small Business Management 3.0 CSU

**Plus:**
- BUSM 66 Small Business Management 3.0 CSU

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

**Total Units:** 19.0

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

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

#### Requirements for the Certificate
**Required courses:**
- Completion of the Business: Management - Level I and II course work (18.5 Units) as follows:
  - BUSM 20 Principles of Business: 3.0 CSU,UC
  - BUSM 61 Business Organization: 3.0 CSU
  - BUS 36 Principles of Marketing: 3.0 CSU

**Level II as follows:**
  - BUSM 20 Principles of Business: 3.0 CSU,UC
  - BUSM 61 Business Organization: 3.0 CSU
  - BUS 36 Principles of Marketing: 3.0 CSU
  - BUS 36 Principles of Marketing: 3.0 CSU
  - BUS 36 Principles of Marketing: 3.0 CSU
  - BUS 36 Principles of Marketing: 3.0 CSU
  - BUS 36 Principles of Marketing: 3.0 CSU
  - BUS 36 Principles of Marketing: 3.0 CSU

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

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

#### Requirements for the Certificate
**Required courses:**
- Completion of the Retail Management - Level I course work (9.5 Units) as follows:
  - BUS 25 Business Communications: 3.0 CSU
  - BUS 50 Retail Store Management and Merchandising: 3.0
  - FASH 62 Retail Store Management and Merchandising: 3.0 CSU
  - CIS 15 Microcomputer Applications: 4.0 CSU,UC

**Plus the following courses:**
- BUSA 28 Essentials of Accounting: 3.0
- BUSM 61 Business Organization: 3.0 CSU
- BUS 50 Retail Store Management and Merchandising: 3.0
- BUS 36 Principles of Marketing: 3.0 CSU

**Total Units:** 22.0

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

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

#### Requirements for the Certificate
**Required courses:**
- Completion of Business: Small Business Management - Level I course work (9.5 Units) as follows:
  - BUSM 20 Principles of Business: 3.0 CSU,UC
  - BUSM 62 Human Resource Management: 3.0
  - BUS 36 Principles of Marketing: 3.0 CSU

**Level II as follows:**
  - BUSM 20 Principles of Business: 3.0 CSU,UC
  - BUSM 62 Human Resource Management: 3.0
  - BUS 36 Principles of Marketing: 3.0 CSU

**Plus the following courses:**
- BUS 7 Principles of Accounting - Financial: 5.0 CSU,UC

**Total Units:** 30.0

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

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

#### Requirements for the Certificate
**Required courses:**
- Completion of Business: Small Business Management Level I and II course work (18.5 Units) as follows:
  - BUSM 20 Principles of Business: 3.0 CSU,UC
  - BUSM 62 Human Resource Management: 3.0
  - BUS 36 Principles of Marketing: 3.0 CSU

**Required courses:**
- Completion of Business: Small Business Management - Level II course work (9.5 Units) as follows:
  - BUS 25 Business Communications: 3.0 CSU
  - BUS 50 Retail Store Management and Merchandising: 3.0
  - FASH 62 Retail Store Management and Merchandising: 3.0 CSU
  - CIS 15 Microcomputer Applications: 4.0 CSU,UC

**Required courses:**
- Completion of the Retail Management - Level I course work (9.5 Units) as follows:
  - BUS 25 Business Communications: 3.0 CSU
  - BUS 50 Retail Store Management and Merchandising: 3.0
  - FASH 62 Retail Store Management and Merchandising: 3.0 CSU
  - CIS 15 Microcomputer Applications: 4.0 CSU,UC

**Total Units:** 22.0

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

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

Requirements for the Certificate

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

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHLD 1</td>
<td>Child, Family and Community</td>
<td>3.0</td>
</tr>
<tr>
<td>CHLD 5</td>
<td>Principles/Practices in Child Development Programs</td>
<td>3.0</td>
</tr>
<tr>
<td>CHLD 6</td>
<td>Survey of Child Development Curriculum</td>
<td>3.0</td>
</tr>
<tr>
<td>CHLD 10</td>
<td>Child Growth and Development</td>
<td>3.0</td>
</tr>
<tr>
<td>CHLD 10H</td>
<td>Child Growth and Development - Honors</td>
<td></td>
</tr>
<tr>
<td>CHLD 64</td>
<td>Health, Safety and Nutrition of Young Children</td>
<td>3.0</td>
</tr>
<tr>
<td>CHLD 68</td>
<td>Children With Special Needs</td>
<td>3.0</td>
</tr>
<tr>
<td>CHLD 84</td>
<td>Guidance &amp; Discipline</td>
<td>1.0</td>
</tr>
</tbody>
</table>

PLUS

Select three (3) courses from:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHLD 63</td>
<td>Creative Science and Math for Young Children</td>
<td>3.0</td>
</tr>
<tr>
<td>CHLD 70</td>
<td>Infant/Toddler Care and Development</td>
<td>3.0</td>
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</table>

PLUS

Additional required courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHLD 50</td>
<td>Multicultural Education</td>
<td>3.0</td>
</tr>
<tr>
<td>CHLD 71A</td>
<td>Administration of Child Development Programs</td>
<td>3.0</td>
</tr>
<tr>
<td>CHLD 71B</td>
<td>Management/Marketing/Personnel for ECD Programs</td>
<td>3.0</td>
</tr>
<tr>
<td>CHLD 75</td>
<td>Supervising Adults in Early Childhood Settings</td>
<td>2.0</td>
</tr>
</tbody>
</table>

PLUS

Select four (4) units from:

Note: Your four (4) unit selection should not include any course you have previously taken.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUSM 66</td>
<td>Small Business Management</td>
<td>3.0</td>
</tr>
<tr>
<td>CHLD 72</td>
<td>Teacher, Parent and Child Relationships</td>
<td>3.0</td>
</tr>
<tr>
<td>CHLD 73</td>
<td>Infant/Toddler Care and Development</td>
<td>3.0</td>
</tr>
<tr>
<td>CHLD 82</td>
<td>Advocacy in Early Childhood Development</td>
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</tr>
<tr>
<td>CHLD 83</td>
<td>Current Issues in Child Development</td>
<td>1.0</td>
</tr>
<tr>
<td>CHLD 84</td>
<td>Guidance &amp; Discipline</td>
<td>1.0</td>
</tr>
</tbody>
</table>

Children’s Program Certificate: General - Level II

Child Development Certificate L1328

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

Requirements for the Certificate

Required courses:
Completion of the Children's Program work: General - Level I, as follows:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>CHLD 1</td>
<td>Child, Family and Community</td>
<td>3.0</td>
</tr>
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<td>CHLD 6</td>
<td>Survey of Child Development Curriculum</td>
<td>3.0</td>
</tr>
<tr>
<td>CHLD 10</td>
<td>Child Growth and Development</td>
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</tr>
<tr>
<td>CHLD 10H</td>
<td>Child Growth and Development - Honors</td>
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PLUS

Select three (3) courses from:

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<tbody>
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<td>Multicultural Education</td>
<td>3.0</td>
</tr>
<tr>
<td>CHLD 61</td>
<td>Language Arts &amp; Art Media for Young Children</td>
<td>3.0</td>
</tr>
<tr>
<td>CHLD 62</td>
<td>Music and Motor Development for Young Children</td>
<td>3.0</td>
</tr>
<tr>
<td>CHLD 63</td>
<td>Creative Science and Math for Young Children</td>
<td>3.0</td>
</tr>
<tr>
<td>CHLD 73</td>
<td>Infant/Toddler Care and Development</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Total Units 28.0

Children’s Program Certificate: General - Level III

Child Development Certificate L1327

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

Requirements for the Certificate

Required courses:
Completion of the Children's Program course work: General - Level I, as follows:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
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<tbody>
<tr>
<td>CHLD 1</td>
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</tr>
<tr>
<td>CHLD 6</td>
<td>Survey of Child Development Curriculum</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Total Units 19.0

Children’s Program Certificate: Small Business Management

Child Development Certificate T1311

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

Requirements for the Certificate

Required courses:

<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 66</td>
<td>Small Business Management</td>
<td>3.0</td>
</tr>
<tr>
<td>BUSO 5</td>
<td>Business English</td>
<td>3.0</td>
</tr>
<tr>
<td>CHLD 1</td>
<td>Child, Family and Community</td>
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<td>3.0</td>
</tr>
</tbody>
</table>

Total Units 33.0

Recommended Electives:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUSA 70</td>
<td>Payroll and Tax Accounting</td>
<td></td>
</tr>
<tr>
<td>BUSL 18</td>
<td>Business Law</td>
<td></td>
</tr>
<tr>
<td>BUSL 18H</td>
<td>Business Law - Honors</td>
<td></td>
</tr>
<tr>
<td>BUSB 20</td>
<td>Principles of Business</td>
<td></td>
</tr>
<tr>
<td>BUSO 25</td>
<td>Business Communications</td>
<td></td>
</tr>
<tr>
<td>BUSB 33</td>
<td>Advertising and Promotion</td>
<td></td>
</tr>
<tr>
<td>BUSB 36</td>
<td>Principles of Marketing</td>
<td></td>
</tr>
<tr>
<td>CISB 11</td>
<td>Computer Information Systems</td>
<td></td>
</tr>
</tbody>
</table>

Children’s Program Certificate: Teaching

Child Development Certificate T1312

The Children’s Program Certificate: Teaching Specialization is designed for the student who desires knowledge about Early Childhood Development and skills for teaching young children. This certificate meets or exceeds Title 22 education requirements for fully qualified teachers and is expected to meet or exceed Title 5 education requirements for Teacher Level (with 16 units of G.E. English, math or Science, Social Science and Humanities).

Requirements for the Certificate

Required courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHLD 1</td>
<td>Child, Family and Community</td>
<td>3.0</td>
</tr>
<tr>
<td>CHLD 5</td>
<td>Principles/Practices in Child Development Programs</td>
<td>3.0</td>
</tr>
<tr>
<td>CHLD 6</td>
<td>Survey of Child Development Curriculum</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Total Units 19.0

Programs of Study Leading to a Certificate

<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 66</td>
<td>Small Business Management</td>
<td>3.0</td>
</tr>
<tr>
<td>BUSO 5</td>
<td>Business English</td>
<td>3.0</td>
</tr>
<tr>
<td>CHLD 1</td>
<td>Child, Family and Community</td>
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<tr>
<td>CHLD 5</td>
<td>Principles/Practices in Child Development Programs</td>
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</tr>
<tr>
<td>CHLD 6</td>
<td>Survey of Child Development Curriculum</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Total Units 33.0

Recommended Electives:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUSA 70</td>
<td>Payroll and Tax Accounting</td>
<td></td>
</tr>
<tr>
<td>BUSL 18</td>
<td>Business Law</td>
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<tr>
<td>BUSL 18H</td>
<td>Business Law - Honors</td>
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<td>BUSM 20</td>
<td>Principles of Business</td>
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<td>BUSO 25</td>
<td>Business Communications</td>
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<tr>
<td>BUSB 33</td>
<td>Advertising and Promotion</td>
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<tr>
<td>BUSB 36</td>
<td>Principles of Marketing</td>
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<tr>
<td>CISB 11</td>
<td>Computer Information Systems</td>
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Children’s Program Certificate: Teaching
Programs of Study Leading to a Certificate

CHLD 10H  Child Growth and Development 3.0  CSU,UC - Honors
CHLD 64  Health, Safety and Nutrition of Young Children 3.0  CSU
CHLD 68  Children With Special Needs 3.0  CSU
CHLD 84  Guidance and Discipline in Child Development Settings 1.0  CSU

Plus the following courses:

CHLD 50  Multicultural Education: Anti-Bias Perspective 3.0
CHLD 66  Early Childhood Development Observation 2.0  CSU
CHLD 66L  Early Childhood Development Observation Laboratory 1.0  CSU
CHLD 67  Early Childhood Development Participation 2.0  CSU
CHLD 67L  Early Childhood Development Participation Laboratory 1.0  CSU
CHLD 69  Early Childhood Development Field Work Seminar 2.0  CSU
CHLD 75  Supervising Adults in Early Childhood Settings 2.0
CHLD 91  Early Childhood Development Field Work 1.0  CSU

PLUS
Select two (2) courses from:

CHLD 51  Early Literacy in Child Development 3.0
CHLD 61  Language Arts & Art Media for Young Children 3.0
CHLD 62  Music and Motor Development for Young Children 3.0
CHLD 63  Creative Sciences and Math for Young Children 3.0

Total Units 39.0

Computer and Networking Technology - Level II
Electronics and Computer Technology Department
Certificate L0726
The Computer and Networking Technology Certificates prepare students to enter the computer and networking fields as service technicians. The program provides foundational skills in basic electronics, computer servicing, operating systems, network/server servicing, and customer relations skills. The student will be prepared to perform installation, software configuration, and the maintenance, operation, troubleshooting and repair of computers and their associated networking software/hardware. In addition the program prepares students to take the A+, Network+, Server+ and Security+ certification tests offered at testing centers throughout the country. These certifications are CompTIA sponsored and are recognized worldwide as industry benchmarks for computer and networking technician. Further, the student will develop the requisite skills upon which to build in order to seek additional certification.

Requirements for the Certificate

Required courses:

- CNET 50  PC Servicing 4.0
- CNET 52  PC Operating Systems 4.0
- CNET 54  PC Troubleshooting 4.0
- CNET 50  A+ Certification Preparation 3.0
- ELEC 11  Technical Applications in Microcomputers 3.0  CSU
- CISP 15  Microcomputer Applications 4.0  CSU,UC
- ELEC 50A  Electronic Circuits (DC) 4.0  CSU
- ELEC 50B  Electronic Circuits (AC) 4.0  CSU
- ELEC 56  Digital Electronics 4.0  CSU

Total Units 30.0 - 31.0

Recommended Electives:

- GRAP 1  Computer Graphics Lab 1.0
- PHOT 10  Beginning Photography 3.0  CSU,UC
- PHOT 17  Photocommunication 3.0

Total Units 24.0

Requirements for the Certificate

Required courses:

- CNET 50  PC Servicing 4.0
- CNET 52  PC Operating Systems 4.0
- CNET 54  PC Troubleshooting 4.0
- CNET 60  A+ Certification Preparation 3.0
- ELEC 11  Technical Applications in Microcomputers 3.0  CSU
- CISP 15  Microcomputer Applications 4.0  CSU,UC
- ELEC 50A  Electronic Circuits (DC) 4.0  CSU
- ELEC 50B  Electronic Circuits (AC) 4.0  CSU
- ELEC 56  Digital Electronics 4.0  CSU

Plus the following courses:

Level II as follows:

- CNET 56  Computer Networks 4.0
- CNET 62  Network+ Certification Preparation 3.0
- CNET 64  Server+ Certification Preparation 3.0
- CNET 66  Security+ Certification Preparation 3.0
- TECH 60  Customer Relations for the Technician 1.0

Total Units 44.0 - 45.0

Recommended Electives:

- ELEC 51  Electronic Devices 3.0
- ELEC 74  Microprocessor Systems 3.0
- ELEC 54  Cabling and Wiring Standards 3.0
- CNET 60  is recommended for those seeking the Level I Certificate. It is a test preparation course for the A+ certification test. CNET 62 is recommended for those seeking the Level II Certificate. It is a test preparation course for the Network+ certification test.

Computer Graphic Design/Photography
Commercial and Entertainment Arts
Certificate L1005
The Computer Graphics Certificate will enable the student to develop specific computer skills needed for employment subsequent to completion of the required courses. The Computer Graphics Certificate is an option under the existing Photography program. These anticipating a Bachelor's Degree should be guided in their selection of lower-division courses by an advisor of the catalog of the institution they expect to enter.

Computer Systems Technology
Electronics and Computer Technology Department
Certificate L0924
This curriculum is one of three advanced systems options available for those students who do not complete all advanced systems courses at once, or who complete them one at a time. The Computer Systems Technology curriculum encompasses advanced coursework in computer systems circuitry. This includes microprocessor programming codes and microprocessor interfacing circuits. Two additional certificate programs are also available: a one-year certificate in Electronics Technology and a two-year certificate with the same title as the A.S. Degree. All students completing an Electronic A.S. Degree program are automatically eligible to receive, without further examination, the N.A.R.T.E. 3rd Class Technician License, and all students completing certificate programs are automatically eligible to receive, without further examination, the N.A.R.T.E. 4th Class Technician License.
Construction Inspection
Architecture and Engineering Design Department
Certificate L0920
This program is intended to prepare students for employment following completion of courses. Students desiring a Bachelor’s Degree (transfer program) should consult with a counselor or advisor to discuss transferability of courses.

Requirements for the Certificate

Required courses:
- ARCH 12 Architectural Materials and Specifications 3.0 CSU
- ARCH 14 Building and Zoning Codes 3.0
- INSP 17 Legal Aspects of Construction 3.0 CSU
- INSP 70 Elements of Construction 3.0 CSU
- INSP 71 Construction Estimating 3.0 CSU
- INSP 87 Fundamentals of Construction Inspection 3.0
- MATH 51 Elementary Algebra 4.0

Total Units 22.0

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

Certificate L1321
This program provides semi-professional training for those who seek immediate employment with the public sector or business establishments such as finance, retail, utilities and telecommunications. Students desiring a Bachelor’s Degree (transfer program) should consult with a counselor or advisor to discuss transferability of courses.

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

Certificate requirements state that at least half of the required number of units must be taken at Mt. San Antonio College and that in each course taken toward a certificate, a grade of “C” or better must be earned. Students who are in the last semester of a certificate program must complete an Application for Certificate form, available at the Admissions and Records Office, in order to be awarded the Certificate.

Requirements for the Certificate

Required courses:
- BUS 18 Business Law, or 3.0 CSU,UC
- BUS 18H Business Law - Honors 3.0 CSU,UC
- BUSM 60 Human Relations in Business 3.0 CSU
- FCS 41 Life Management 3.0 CSU
- FCS 80 Financial Planning 3.0 CSU
- BUSA 71 Financial Planning 3.0 CSU
- FCS 91 Work Experience in Family and Consumer Sciences 1.0
- BUSL 36 Paralegal Internship 1.0

PLUS
- Select two (2) courses from:
  - BUSO 5 Business English 3.0
  - BUSO 25 Business Communications 3.0 CSU
  - COMP 12 Office Computer Applications 4.0 CSU,UC
  - GCS 15 Microcomputer Applications 4.0 CSU,UC

Total Units 22.0 - 24.0

Correctional Sciences
Public Services Department
Certificate T2103
Correctional Sciences is the application of law, social, and natural sciences to the social phenomenon of crime and delinquency. The discipline addresses definitions, causation, prevention, discovery, procedures, treatment and rehabilitation, quantification, and research in both criminal and civil aspects. This program is intended to prepare students for employment following graduation. Students desiring a Bachelor’s Degree (transfer program) should consult with a counselor or advisor to discuss transferability of courses.

Requirements for the Certificate

Required courses:
- ADJU 68 Administration of Justice 3.0 Report Writing
- 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

PLUS
- Select four (4) courses from:
  - ADJU 1 The Administration of Justice System 3.0 CSU,UC
  - ADJU 2 Principles and Procedures of the Justice System 3.0 CSU
  - ADJU 20 Principles of Investigation 3.0 CSU
  - ADJU 38 Narcotics Investigation 3.0
  - ADJU 38 Gang in the Community/ Corrections 3.0 CSU
  - CORS 35 Interviewing and Counseling in Corrections 3.0
  - CORS 40 Crime and Delinquency 3.0
  - CORS 45 The Violent Offender 3.0

Total Units 30.0

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

**Electronics and Computer Technology Department Certificate L0928**

The Level II certification (12-13 units) adds study in maintenance and troubleshooting of home theater, home automation, and home security systems. Either a course on preparing for the C-7 license or troubleshooting digital TV with LCD, plasma and DLP video displays is included.

#### Requirements for the Certificate

**Required courses:**

- ELEC 62 Advanced Surface Mount Assembly
- ELEC 61 Electronic Assembly and Fabrication

**Recommended Electives:**

- EST 70 C-7 Low Voltage Systems
- EST 64 Electronic Troubleshooting - II

**Plus the following courses:**

- TECH 60 Customer Relations for the Technician
- EST 52 Fabrication Techniques
- EST 54 Wiring and Installation Standards

**Total Units: 26.0 - 29.0**

### Electronics and Computer Engineering Technology

**Electronics and Computer Technology Department Certificate T0906**

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

This program is intended to prepare students for employment in electronics industries or for transfer into electronic and computer engineering technology or industrial technology programs at various institutions in the CSU system. Many of the courses directly articulate to courses offered at the CSUs. The certificate prepares students for the following positions: field service technician, field engineer, computer service technician, customer service technician, communications technician, maintenance technician, and electronics technician. All students completing a certificate program are automatically eligible to receive, without further examination, the N.A.R.T.E. 4th Class Technician License.

**Requirements for the Certificate**

**Required courses:**

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

**Total Units: 26.0 - 29.0**

**Recommended Electives:**

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

### Electronics Communications

**Electronics and Computer Technology Department Certificate T0904**

This curriculum is one of three advanced systems options available for those students who do not complete all advanced systems courses at once, or who complete them one at a time. The Electronics Communications curriculum encompasses advanced coursework in electronics communications. This includes both land-based and wireless forms of communications. The curriculum includes nearly all labs have new, state-of-the-art equipment to provide the student with quality hands-on learning experiences.

The curriculum includes microwave communications coursework that includes radar, PCS, GPS, and satellite operations. Two additional certificate programs are also available; a one-year certificate in Electronics Technology, and a two-year certificate having the same title as the A.S. Degree. All students completing an Electronics A.S. Degree program are automatically eligible to receive, without further examination, the N.A.R.T.E. 3rd Class Technician License, and all students completing certificate programs are automatically eligible to receive, without further examination, the N.A.R.T.E. 4th Class Technician License.

**Requirements for the Certificate**

**Required courses:**

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

**Total Units: 22.0**

### Electronics: Industrial Systems

**Electronics and Computer Technology Department Certificate T0908**

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

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

**Requirements for the Certificate**

**Required courses:**

- ELEC 11 Technical Applications in Microprocessors 3.0 CSU

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**Programs of Study Leading to a Certificate**

**Electronic Systems Technology - Level II**

- **Electronics and Computer Technology Department Certificate L0928**

**Electronics and Computer Engineering Technology**

- **Electronics and Computer Technology Department Certificate T0906**

**Electronics Communications**

- **Electronics and Computer Technology Department Certificate T0904**

**Electronics: Industrial Systems**

- **Electronics and Computer Technology Department Certificate T0908**
Programs of Study Leading to a Certificate

Emergency Medical Technician - Paramedic (EMT-P)

Medical Services Department Certificate T1281

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

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

Requirements for the Certificate

Required courses:

- EMS 1 Fundamentals for Paramedics 4.0
- EMS 10 Anatomy and Physiology for Paramedics 2.0
- EMS 20 Emergency Cardiac Care for Paramedics 1.0
- EMS 30 Pharmacology for Paramedics 2.0
- EMS 40 Cardiology for Paramedics 5.0
- EMS 50 Paramedic Skills Competency 4.5
- EMS 60 EMS Theory for Paramedics 8.5
- EMS 70 Paramedic Clinical Internship 3.5
- EMS 80 Paramedic Field Internship 8.5

Total Units 39.0

Recommended Electives:

- ADU 1 The Administration of Justice System
- PSCI 1A Introduction to Psychology
- SOC 1 Sociology

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

Special Information:

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

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

Application Requirements and Selection Procedures

Application Requirements:

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

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

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

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

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

Entrance Procedure:

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

1) Completion of all application requirements
2) EMS-related experience
3) Scores on the English assessment and math placement tests
4) Performance in the pre-course, EMS 1 — Fundamentals for Paramedics. This course tests prerequisite knowledge base in medical terminology, anatomy and physiology, EMT basic knowledge and basic math skills in preparation for drug calculations.

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

Physical Demands:

- Perform prolonged, extensive, or considerable standing/walking, lifting 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:

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

Engineering Design Technology - Level I
Architecture and Engineering Design Department
Certificate L0909

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

Requirements for the Certificate
Required courses:
- EDT 11 Technical Engineering Drawing I 3.0 CSU
- EDT 12 Technical Engineering Drawing II 3.0 CSU
- EDT 14 Mechanical Design 3.0 CSU
- EDT 16 Basic CAD and Computer Applications 2.0 CSU
- EDT 18 Engineering CAD Applications 4.0 CSU

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

Total Units 19.0 - 21.0

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

Engineering Design Technology - Level II
Architecture and Engineering Design Department
Certificate T0915

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

Requirements for the Certificate
Required courses:
Level I as follows:
- EDT 11 Technical Engineering Drawing I 3.0 CSU
- EDT 12 Technical Engineering Drawing II 3.0 CSU
- EDT 14 Mechanical Design 3.0 CSU
- EDT 16 Basic CAD and Computer Applications 4.0 CSU
- EDT 18 Engineering CAD Applications 4.0 CSU
- MFG 11 Manufacturing Processes I 2.0 CSU
- ELEC 50A Electronic Circuits (DC) 4.0 CSU

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

Total Units 25.0

Escrow Management
Business Administration Department
Certificate L0511

Requirements for the Certificate
Required courses:
- BUSA 11 Fundamentals of Accounting 3.0
- BUSR 50 Real Estate Principles 3.0
- BUSR 51 Legal Aspects of Real Estate 3.0
- BUSR 76 Escrow Procedures I 3.0
- BUSR 77 Escrow Procedures II 3.0
- CISB 15 Micromputer Applications 4.0

Total Units 19.0

Family Child Care
Child Development
Certificate L1316

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

Requirements for the Certificate
Required courses:
- CHLD 1 Child, Family and Community 3.0

Total Units 25.0

Fashion Design - Level I
Consumer Science and Design Technologies
Certificate L1397

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

Requirements for the Certificate
Required courses:
- FASH 8 Introduction to Fashion 3.0
- FASH 10 Clothing Construction I 3.0
- FASH 12 Clothing Construction II 3.0
- FASH 15 Fashion Strategies 3.0
- FASH 20 Illustration for Fashion and Costume Design 3.0
FASH 21  Patternmaking I  3.0  CSU  
FASH 22  Fashion Design By Draping  3.0  
FASH 23  Patternmaking II  3.0  
FASH 30  Fashion Design and Product Development I  3.0  
Total  Units  27.0  

FASH 91  Field Studies - New York  
FASH 92  Field Studies - Fashion Capitals  

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

Requirements for the Certificate  
Required courses:  

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

Total Units  27.0  

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

Requirements for the Certificate  
Required courses:  

- AGL 20  Microcomputer Applications in Agriculture  3.0  CSU,UC  
- AGL 59  Work Experience in Agriculture  1.0 - 4.0  
- AGAN 2  Animal Nutrition  3.0  CSU  
- AGL 94  Animal Breeding  3.0  
- AGL 116  Horse Production  4.0  CSU,UC  
- AGL 118  Horse Ranch Management  4.0  CSU  
- AGL 19  Horse Hoof Care  2.0  CSU  
- AGL 196  Animal Sanitation and Disease Control  3.0  CSU  
- AGL 197  Artificial Insemination of Livestock  2.0  

Total Units  21.0 - 24.0  

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

Requirements for the Certificate  
Required courses:  

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

Total Units  20.5  

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

**Hospitality: Hospitality Management - Level II**

**Consumer Science and Design Technologies Certificate L1325**

This certificate prepares the holder to enter the hospitality field as a manager-trainee in a hotel or restaurant.

#### Requirements for the Certificate

<table>
<thead>
<tr>
<th>Required courses:</th>
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<tbody>
<tr>
<td>HRM 51</td>
<td>Introduction to Hospitality</td>
<td>3.0 CSU</td>
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<tr>
<td>HRM 53</td>
<td>Dining Room Service</td>
<td>3.0 CSU</td>
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<tr>
<td>HRM 56</td>
<td>Management of Hospitality Personnel and Operations</td>
<td>3.0 CSU</td>
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<td>HRM 64</td>
<td>Hospitality Financial Accounting</td>
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<td>Hospitality Law</td>
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<tr>
<td>HRM 70</td>
<td>Introduction to Lodging</td>
<td>3.0 CSU</td>
</tr>
<tr>
<td>HRM 91</td>
<td>Work Experience in Restaurant/Hospitality</td>
<td>1.0 CSU</td>
</tr>
</tbody>
</table>

**Total Units** 19.0

**Hospitality: Restaurant Management - Level II**

**Consumer Science and Design Technologies Certificate L1319**

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

#### Requirements for the Certificate

<table>
<thead>
<tr>
<th>Required courses:</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>HRM 51</td>
<td>Introduction to Hospitality</td>
<td>3.0 CSU</td>
</tr>
<tr>
<td>HRM 52</td>
<td>Food Safety and Sanitation</td>
<td>1.5 CSU</td>
</tr>
<tr>
<td>HRM 53</td>
<td>Dining Room Service</td>
<td>3.0 CSU</td>
</tr>
<tr>
<td>HRM 54</td>
<td>Basic Cooking Techniques</td>
<td>3.0 CSU</td>
</tr>
<tr>
<td>HRM 57</td>
<td>Restaurant Cost Control</td>
<td>3.0 CSU</td>
</tr>
<tr>
<td>HRM 61</td>
<td>Menu Planning</td>
<td>3.0 CSU</td>
</tr>
<tr>
<td>NF 28</td>
<td>Cultural and Ethnic Foods</td>
<td>3.0 CSU,UC</td>
</tr>
</tbody>
</table>

**Total Units** 19.5

**Infant/Toddler Development Certificate T1318**

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

#### Requirements for the Certificate

<table>
<thead>
<tr>
<th>Required courses:</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>ARCH 11</td>
<td>Architectural Drawing</td>
<td>3.0 CSU,UC</td>
</tr>
<tr>
<td>ARCH 15</td>
<td>Architectural Working Drawings - I</td>
<td>3.0 CSU</td>
</tr>
<tr>
<td>ARCH 16</td>
<td>Basic CAD and Computer Application</td>
<td>4.0 CSU,UC</td>
</tr>
</tbody>
</table>

**Total Units** 30.0

**Interior Design - Kitchen And Bath Design Certificate T1302**

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

#### Requirements for the Certificate

<table>
<thead>
<tr>
<th>Required courses:</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>ARCH 13</td>
<td>Architectural Illustration</td>
<td></td>
</tr>
<tr>
<td>ARCH 23</td>
<td>Architectural Presentations</td>
<td></td>
</tr>
<tr>
<td>BUSA 72</td>
<td>Bookkeeping - Accounting</td>
<td></td>
</tr>
<tr>
<td>BUSM 60</td>
<td>Human Relations in Business</td>
<td></td>
</tr>
<tr>
<td>BUSM 66</td>
<td>Small Business Management</td>
<td></td>
</tr>
<tr>
<td>BUSS 35</td>
<td>Professional Selling</td>
<td></td>
</tr>
<tr>
<td>BUSS 50</td>
<td>Retail Store Management and Merchandising</td>
<td></td>
</tr>
</tbody>
</table>

**Total Units** 25.0

**Interior Design Level II - Design Certificate T1330**

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

#### Requirements for the Certificate

<table>
<thead>
<tr>
<th>Required courses:</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>ARCH 11</td>
<td>Architectural Drawing</td>
<td>3.0 CSU,UC</td>
</tr>
<tr>
<td>ARCH 16</td>
<td>Basic CAD and Computer Application</td>
<td>4.0 CSU,UC</td>
</tr>
<tr>
<td>BUSA 72</td>
<td>Bookkeeping - Accounting</td>
<td>3.0 CSU</td>
</tr>
<tr>
<td>BUSM 60</td>
<td>Human Relations in Business</td>
<td>3.0 CSU</td>
</tr>
<tr>
<td>BUSM 66</td>
<td>Small Business Management</td>
<td>3.0 CSU</td>
</tr>
<tr>
<td>BUSS 35</td>
<td>Professional Selling</td>
<td>3.0 CSU</td>
</tr>
<tr>
<td>BUSS 50</td>
<td>Retail Store Management and Merchandising</td>
<td>3.0 CSU</td>
</tr>
</tbody>
</table>

**Total Units** 56.0

**Recommended Electives:**

- **ARCH 13** Architectural Illustration
- **ARCH 23** Architectural Presentations
- **BUSM 60** Human Relations in Business
- **BUSM 66** Small Business Management
- **BUSS 35** Professional Selling
- **BUSS 50** Retail Store Management and Merchandising

**Interior Design Level I - Merchandising Certificate L1322**

This program is intended to prepare students for employment as assistants and sales personnel for interior design products. The Interior Design program works within a Regional Interior Design Consortium of nearby community colleges. Many of the required courses may also be offered at the following community colleges: Fullerton, Long Beach City, Orange Coast, and Saddleback, and will meet the requirements of the Mt. SAC program.

#### Requirements for the Certificate

<table>
<thead>
<tr>
<th>Required courses:</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>ARCH 11</td>
<td>Architectural Drawing</td>
<td>3.0 CSU,UC</td>
</tr>
<tr>
<td>ARCH 16</td>
<td>Basic CAD and Computer Application</td>
<td>4.0 CSU,UC</td>
</tr>
<tr>
<td>BUSA 72</td>
<td>Bookkeeping - Accounting</td>
<td>3.0 CSU</td>
</tr>
<tr>
<td>BUSM 60</td>
<td>Human Relations in Business</td>
<td>3.0 CSU</td>
</tr>
<tr>
<td>BUSM 66</td>
<td>Small Business Management</td>
<td>3.0 CSU</td>
</tr>
<tr>
<td>BUSS 35</td>
<td>Professional Selling</td>
<td>3.0 CSU</td>
</tr>
<tr>
<td>BUSS 50</td>
<td>Retail Store Management and Merchandising</td>
<td>3.0 CSU</td>
</tr>
</tbody>
</table>

**Total Units** 25.0

**Regional**
Completing the requirements listed below.

Professional Designation in Interior Design after the Interior Design program at Mt. SAC. Students already request a Professional Designation in Interior Design from completion of the Bachelor Degree, the student may college within the Regional Interior Design Program. Upon completion of the Bachelor Degree program at CSUDH, students must complete 16 general education requirements to transfer into either of the CSUDH programs. While completing the Bachelor's Design A.S. Degree major requirements and Mt. SAC Interior Design Careers 2.0 CSU

Required courses:

- Required courses: Level II as follows:
  - ARCH 13 Architectural Illustration 3.0 CSU,UC
  - ARCH 15 Architectural Working 3.0 CSU
  - ID 170 Space Planning 3.0 CSU
  - ID 180 History of Interior Architecture & Furnishings I 3.0 CSU
  - ID 190 History of Interior Architecture & Furnishings II 3.0 CSU
  - ID 210 Fundamentals of Lighting 3.0 CSU
  - ID 215 Interior Design Studio II 2.0 CSU
  - ID 230 Business and Professional Practice 3.0 CSU
  - ID 240A Interior Design Internship Seminar and 1.0
  - ID 240B Interior Design Internship 1.0

Total Units 50.0

Interior Design Level III - Professional Designation Consumer Science and Design Technologies Certificate F1391

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

Requirements for the Certificate

- Required courses: Completion of the Interior Design Level I - Merchandising course work (25 units) as follows:
  - ARCH 11 Architectural Drawing 3.0 CSU,UC
  - ARCH 16 Basic CAD and Computer Application 4.0 CSU,UC
  - BUSX 35 Professional Selling 3.0 CSU
  - ID 100 Fundamentals of Interior Design 3.0 CSU
  - ID 105 Interior Design Studio I 2.0 CSU
  - ID 120 Interior Design Careers 2.0 CSU
  - ID 130 Applied Color and Design Theory 4.0 CSU
  - ID 150 Interior Materials and Products 4.0 CSU

- Required courses: Level II course work as follows:
  - ARCH 13 Architectural Illustration 3.0 CSU,UC
  - ARCH 15 Architectural Working 3.0 CSU
  - ID 170 Space Planning 3.0 CSU
  - ID 180 History of Interior Architecture & Furnishings I 3.0 CSU
  - ID 190 History of Interior Architecture & Furnishings II 3.0 CSU
  - ID 210 Fundamentals of Lighting 3.0 CSU
  - ID 215 Interior Design Studio II 2.0 CSU
  - ID 230 Business and Professional Practice 3.0 CSU
  - ID 240A Interior Design Internship Seminar and 1.0
  - ID 240B Interior Design Internship 1.0

Total Units 66.0

Interior Landscaping Agricultural Sciences Department Certificate L0106

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

Requirements for the Certificate

- Required courses:
  - AGOR 1 Horticultural Science 3.0 CSU
  - AGOR 13 Landscape Design 3.0 CSU
  - AGOR 15 Interior Landscaping 3.0
  - AGOR 24 Integrated Pest Management 3.0 CSU
  - AGOR 29 Ornamental Plants - Herbaceous 3.0 CSU,UC
  - AGOR 32 Landscaping and Nursery Management 3.0 CSU
  - AGOR 62 Landscape Irrigation - Design and Installation 3.0
  - AGOR 64 Landscape Irrigation - Drip and Low Volume Total Units 24.0

Landscape and Park Maintenance Agricultural Sciences Department Certificate T0108

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

Requirements for the Certificate

- Required courses:
  - AGOR 1 Horticultural Science 3.0 CSU
  - AGOR 24 Integrated Pest Management 3.0 CSU
  - AGOR 29 Ornamental Plants - Herbaceous 3.0 CSU,UC
  - AGOR 30 Ornamental Plants - Trees and Woody Shrubs 3.0 CSU,UC
  - AGOR 32 Landscaping and Nursery Management 3.0 CSU
  - AGOR 62 Landscape Irrigation - Design and Installation 3.0
  - AGOR 64 Landscape Irrigation - Drip and Low Volume Total Units 24.0

Landscape Design and Construction Agricultural Sciences Department Certificate L0109

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

Requirements for the Certificate

- Required courses:
  - AGOR 1 Horticultural Science 3.0 CSU
  - AGOR 13 Landscape Design 3.0 CSU
  - AGOR 29 Ornamental Plants - Herbaceous 3.0 CSU,UC
  - AGOR 30 Ornamental Plants - Trees and Woody Shrubs 3.0 CSU,UC
  - AGOR 50 Soil Science and Management 3.0 CSU,UC
  - AGOR 51 Tractor and Landscape Equipment Operations 3.0
  - AGOR 62 Landscape Irrigation - Design and Installation 3.0 CSU
  - AGOR 71 Landscape Construction Fundamentals 3.0 CSU
  - AGOR 72 Landscape Hardscape Applications 3.0 CSU

Total Units 27.0

Landscape Equipment Technology Agricultural Sciences Department Certificate T0117

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

Requirements for the Certificate

- Required courses:
  - AGOR 1 Horticultural Science 3.0 CSU
  - AGOR 51 Tractor and Landscape Equipment Operations 3.0 CSU
  - AGOR 52 Hydraulics 3.0 CSU
  - AGOR 53 Small Engine Repair I 3.0 CSU
  - AGOR 54 Small Engine Repair II 3.0 CSU
  - AGOR 55 Diesel Engine Repair 3.0 CSU
  - AGOR 56 Engine Diagnostics 3.0 CSU
  - AGOR 57 Power Train Repair 3.0
  - AGOR 71 Landscape Construction Fundamentals 3.0 CSU
  - AGOR 72 Landscape Hardscape Applications 3.0 CSU
  - AGOR 91 Work Experience in Nursery Operations 1.0 – 4.0

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

#### Landscape Irrigation
**Agricultural Sciences Department Certificate L0110**

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

**Requirements for the Certificate**

- **Required courses:**
  - AGOR 1 Horticultural Science 3.0 CSU
  - AGOR 13 Landscape Design 3.0 CSU
  - AGOR 39 Turf Grass Production and Management 3.0 CSU
  - AGOR 50 Soil Science and Management 3.0 CSU,UC
  - AGOR 51 Tractor and Landscape Equipment Operations 3.0 CSU
  - AGOR 52 Landscape Irrigation - Design and Installation 3.0 CSU
  - AGOR 63 Landscape Irrigation Systems Management 3.0
  - AGOR 64 Landscape Irrigation - Drip and Low Volume 3.0
  - AGOR 71 Landscape Construction 3.0 CSU

- **Total Units 27.0**

#### Legal Office Specialist
**Office Technology Department Certificate T0519**

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

**Requirements for the Certificate**

- **Required courses:**
  - PLGL 1 Introduction to Paralegal/Legal 3.0 CSU
  - COMP 28 Office Management Skills 3.0
  - COMP 40 Word for the Business Professional 4.0
  - COMP 11 Internet Research for Business 2.0 CSU
  - COMP 1 Computer Keyboarding 4.0 CSU
  - COMP 2 Intermediate Computer 4.0
  - COMP 15 Microcomputer Applications 4.0 CSU,UC
  - AGAN 1 Animal Science 3.0 CSU,UC
  - AGAN 2 Animal Nutrition 3.0 CSU
  - AGAN 94 Animal Breeding 3.0
  - AGLI 1 Anthro Sanitation 3.0 CSU
  - AGLI 16 Horse Production 4.0 CSU,UC
  - AGLI 17 Sheep Production 3.0 CSU
  - AGLI 30 Beef Production 3.0 CSU
  - AGLI 34 Livestock Judging and Selection 2.0 CSU,UC
  - AGLI 94 Animal Breeding 3.0
  - AGLI 96 Animal Sanitation and Disease Control 3.0

- **Total Units 25.0**

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

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

**Requirements for the Certificate**

- **Required courses:**
  - AGOR 1 Animal Science 3.0 CSU,UC
  - AGOR 2 Animal Nutrition 3.0 CSU
  - AGOR 94 Animal Breeding 3.0
  - AGLI 1 Anthro Sanitation 3.0 CSU
  - AGLI 16 Horse Production 4.0 CSU,UC
  - AGLI 17 Sheep Production 3.0 CSU
  - AGLI 30 Beef Production 3.0 CSU
  - AGLI 34 Livestock Judging and Selection 2.0 CSU,UC
  - AGLI 94 Animal Breeding 3.0
  - AGLI 96 Animal Sanitation and Disease Control 3.0

- **Total Units 25.0**

#### Manufacturing Technology
**Aircraft Maintenance Tech & Manufacturing Dept. Certificate T0918**

The primary purpose of this program is to emphasize the manipulative skills required to enter the field of machine manufacturing, including the skills required for CNC machine operation, machine repair, and troubleshooting.

**Requirements for the Certificate**

- **Required courses:**
  - BUSM 20 Principles of Business 3.0 CSU,UC
  - BUSM 61 Business Organization 3.0 CSU
  - BUSM 36 Principles of Marketing 3.0 CSU
  - BUSM 78 Work Experience in Marketing Management 1.0
  - C抵 15 Microcomputer Applications 4.0 CSU,UC

- **Total Units 25.0**

#### Marketing Management
**Business Administration Department Certificate L0510**

**Requirements for the Certificate**

- **Required courses:**
  - BUSM 11 Principles of Business 3.0 CSU,UC
  - BUSM 20 Principles of Business 3.0 CSU,UC
  - BUSM 27 Principles of Marketing 3.0 CSU
  - BUSM 50 Retail Store Management 3.0
  - BUSM 70 International Marketing Concepts 3.0
  - BUSM 79 Work Experience in Marketing Management 1.0
  - C抵 15 Microcomputer Applications 4.0 CSU,UC

- **Total Units 25.0**
**Medical Office Specialist**  
*Office Technology Department*  
**Certificate T0523**

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

**Requirements for the Certificate**

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

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

**Mental Health Technology - Psychiatric Technician**

*Psychiatric Technician Department*  
**Certificate T1279**

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

**Requirements for the Certificate**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MENT 40</td>
<td>Introduction to Interviewing and Counseling</td>
<td>3.0</td>
</tr>
<tr>
<td>PSYC 40</td>
<td>Introduction to Interviewing and Counseling</td>
<td>3.0</td>
</tr>
<tr>
<td>MENT 56</td>
<td>Medical-Surgical Nursing for Psychiatric Technicians</td>
<td>9.0</td>
</tr>
<tr>
<td>MENT 56L</td>
<td>Clinical Experience</td>
<td>4.0</td>
</tr>
<tr>
<td>MENT 580</td>
<td>Advanced Medical-Surgical Nursing and Pharmacology for PT</td>
<td>4.0</td>
</tr>
<tr>
<td>MENT 58L</td>
<td>Advanced Medical-Surgical Nursing for Psychiatric Technicians</td>
<td>1.5</td>
</tr>
<tr>
<td>MENT 70</td>
<td>Introduction to Psychiatric Technology</td>
<td>1.5</td>
</tr>
<tr>
<td>MENT 70L</td>
<td>Introduction to Psychiatric Technology Clinical Technicians</td>
<td>2.0</td>
</tr>
<tr>
<td>MENT 72</td>
<td>Nursing Care of the Developmentally Disabled Person</td>
<td>7.0</td>
</tr>
<tr>
<td>MENT 72L</td>
<td>Nursing Care of the Developmentally Disabled Person - Clinical</td>
<td>5.0</td>
</tr>
<tr>
<td>MENT 73L</td>
<td>Psychiatric Nursing for Psychiatric Technicians Clinical</td>
<td>5.0</td>
</tr>
<tr>
<td>MENT 73T</td>
<td>Psychiatric Nursing for Psychiatric Technicians</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><strong>Total Units</strong></td>
<td></td>
<td><strong>53.0</strong></td>
</tr>
</tbody>
</table>

**Special Information:**

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

**Entrance Requirements:**

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

- a) Be a high school graduate or equivalent. All students who have taken coursework outside of the United States must have their transcript evaluated. Foreign transcripts will not be accepted without the evaluation.
- b) Be 18 years of age.
- c) File a college application and be accepted as a student at Mt. San Antonio College.
- d) Submit an application for the Mental Health/Psychiatric Technician Program to the Technology and Health Division Office (909) 594-4265.
- e) Take the required English Placement Test (AWP). 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.)
- 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/B vaccine is required of all candidates prior to beginning classes. Students must provide proof that he/she does not have Tuberculosis. These requirements are in accordance with the healthcare agency policy that insures that students are in good health and free from communicable disease and able to perform their training functions. Drug testing may also be required as part of this physical examination. Proof of high school graduation and malpractice insurance are required of all candidates upon acceptance.
- i) Certain convictions may prevent a candidate from being licensed as a Psychiatric Technician.
- j) All students will be required to pass a background check prior to entering the clinical education phase.

**Selection Procedure:**

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

**Physical Demands:**

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

**Sensory Demands:**

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

**Working Environment:**

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

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

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

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

Requirements for the Certificate
Required courses:
- OSB 13 Microsoft Windows 2.0 CSU
- OSW 21 Windows Operating System 4.0 CSU
- OSB 15 Microcomputer Applications 4.0 CSU,UC
- OSB 21 Microsoft Excel 4.0
- CSD 11 Database Management - Microsoft Access 4.0 CSU
- COW 11 Introduction to Internet Technologies 4.0 CSU
- COMP 50 Desktop Presentations Using PowerPoint 4.0 CSU

Total Units 22.0 - 24.0

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

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

Total Units 30.0

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

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

Total Units 37.0

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

Requirements for the Certificate
Required courses:
- GRAP 10 Photo Editing with Photoshop 3.0
- PHOT 10 Basic Digital and Film Photography 3.0 CSU,UC
- PHOT 11 Professional Photography 4.0
- PHOT 12 Photographic Alternatives 3.0 CSU,UC
- PHOT 21 Exploring Color Photography 3.0
- PHOT 16 Fashion Photography or Portraiture and Wedding Photography 3.0

Total Units 27.0

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

Requirements for the Certificate
Required courses:
- CISP 21 Programming in C++ 4.0
- CISP 31 Programming in C++ 4.0
- CISP 34 Advanced C++ Programming 4.0 CSU,UC

Total Units 27.0

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

Requirements for the Certificate
Required courses:
- CSIS 11 Systems Analysis and Design 3.5 CSU,UC
- CISP 21 Programming in Java 4.0
- CISP 21 Windows Operating System 4.0 CSU
- CISP 31 Programming in C++ 4.0 CSU,UC
- CISP 34 Advanced C++ Programming 4.0 CSU,UC

Total Units 27.0
Public Works/Landscape Management

Agricultural Sciences
Certificate 00120
This program is a partnership between Mt. San Antonio College and Citrus College, with core courses that must be taken at each college (courses in Public Works are offered through Citrus, while horticulture/landscape courses are offered at Mt. SAC). Upon completion of the requirements, students may apply for and receive a Certificate of Achievement from either of the two colleges.

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

Total Units 12.00

Radio Broadcasting: Behind the Scenes

Commercial and Entertainment Arts Certificate T0606
The Behind-the-Scenes Radio Broadcasting Certificate is designed for students who are interested in the non-performance side of the industry. Students will receive instruction in developing skills needed to work as disc jockeys, newscasters, voice-over artists and in other performance areas of the industry.

Requirements for the Certificate
Required courses:
- R-TV 01 Introduction to Broadcasting 3.0 CSU
- R-TV 09 Broadcast Sales and Promotion 3.0
- R-TV 10 Radio Management and Programming 3.0
- R-TV 11A Beginning Radio Production 3.0 CSU
- R-TV 11B Advanced Radio Production 3.0 CSU
- R-TV 15 Broadcast Business Practices 3.0
- R-TV 16 Broadcast Business Practices 3.0
- R-TV 19A Introduction to Broadcasting 3.0 CSU
- R-TV 02A On-Air Personality Development 3.0 CSU
- R-TV 02B On-Air Personality Development - Spanish Market 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 CSU
- R-TV 11B Advanced Radio Production 3.0 CSU
- R-TV 15 Broadcast Business Practices 3.0
- R-TV 16 Broadcast Career Preparation 3.0
- R-TV 097A Radio/Entertainment Industry Internship 1.0
- R-TV 097C KSAR Radio/Internet Radio Internship 1.0
- R-TV 97D Entertainment Industry Internship - KSAR Radio 2.0

Total Units 33.0 - 34.0

Radio Broadcasting: On the Air

Commercial and Entertainment Arts Certificate T0605
This On-the-Air Radio Broadcasting Certificate is designed for students who are interested in working in the performance side of the industry. Students receive instruction in various functions of a radio station as they exist independently and in conjunction with the on-the-air product.

Requirements for the Certificate
Required courses:
- R-TV 01 Introduction to Broadcasting 3.0 CSU
- R-TV 02A On-Air Personality Development 3.0 CSU
- R-TV 05 Radio-TV Newswriting 3.0
- R-TV 07A Beginning Commercial Voice-Overs 3.0
- R-TV 11A Beginning Radio Production 3.0 CSU
- R-TV 11B Advanced Radio Production 3.0 CSU
- R-TV 15 Broadcast Business Practices 3.0
- R-TV 16 Broadcast Career Preparation 3.0
- R-TV 097A Radio/Entertainment Industry Internship 1.0
- R-TV 097B Radio/Entertainment Industry Internship 1.0
- R-TV 097C KSAR Radio/Internet Radio Internship 1.0

Total Units 33.0 - 34.0

Real Estate Appraisal
Business Administration Department Certificate L0513
The certificate in Real Estate Appraisal meets all of the educational requirements for Appraiser Trainee, Licensed Appraiser, and depending on the choice of electives may meet the educational requirements for Certified Residential Appraiser.

Requirements for the Certificate
Required courses:
- BUSR 11 Fundamentals of Accounting 3.0
- BUSR 18 Business Law 3.0
- BUSR 15 Real Estate Economics 3.0
- BUSR 57 Income Tax Aspects of Real Estate Investments 3.0
- BUSR 59 Real Estate Property Management 3.0
- BUSR 76 Escrow Procedures I 3.0

Total Units 18.5

Real Estate Appraisal Business Administration Department Certificate L0512
Prior to applying to take the California Real Estate Salesperson License Exam the applicant must have completed Real Estate Principles (BUSR 50), Real Estate Practice (BUSR 52), and a third elective course in real estate. The certificate in real estate includes these three courses and three additional courses for a total of six of the eight classes needed to satisfy the educational requirements to take the California Real Estate Broker Exam.

Requirements for the Certificate
Required courses:
- BUSR 50 Real Estate Principles 3.0
- BUSR 51 Legal Aspects of Real Estate 3.0
- BUSR 52 Real Estate Practice 3.0
- BUSR 53 Real Estate Finance 3.0
- BUSR 55 Real Estate Economics 3.0
- BUSR 57 Income Tax Aspects of Real Estate Investments 3.0
- BUSR 59 Real Estate Property Management 3.0
- BUSR 76 Escrow Procedures I 3.0

Total Units 22.5 - 23.5
**Programs of Study Leading to a Certificate**

### School Age Child - Specialization

#### Child Development Certificate T1314

The School Age Child Specialization Certificate (31-33 units) provides the holder with specialized skills for working with children of that age. This certificate meets or exceeds Title 5 Master Teacher – School Age Child Permit Level (with at least 16 units of general education).

**Requirements for the Certificate**

- **Required courses:**
  - CHLD 1 Child, Family and Community 3.0 CSU,UC
  - CHLD 5 Principles/Practices in Child Development Programs 3.0 CSU
  - CHLD 6 Survey of Child Development Curriculum 3.0 CSU
  - CHLD 10 Child Growth and Development 3.0 CSU,UC
  - CHLD 10H Child Growth and Development - Honors 3.0 CSU,UC
  - CHLD 50 Multicultural Education: Anti-Bias Perspective 3.0
  - CHLD 51 Early Literacy in Child Development 3.0
  - CHLD 62 Music and Motor Development for Young Children 3.0 CSU
  - CHLD 64 Health, Safety and Nutrition of Young Children 3.0 CSU
  - CHLD 74 Program Planning for the School Age Child 3.0

**PLUS**

- **Select one (1) course from:**
  - ENGL 64 Writing Effective Sentences 1.0
  - ENGL 65 Grammar Review 1.0
  - LIT 40 Children's Literature 3.0 CSU

**Total Units 31.0 - 33.0**

### Sign Language/Interpreting

#### Sign Language Department Certificate T0801

The Mt. San Antonio College Interpreter Training Program is designed to prepare individuals for careers as Sign Language Interpreters. Interpreters are needed whenever communication happens between the hearing community and the Deaf and hard-of-hearing community. There are an

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Units</th>
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<tbody>
<tr>
<td>SIGN 105</td>
<td>American Sign Language 5</td>
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<tr>
<td>SIGN 108</td>
<td>Fingerspelling</td>
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<tr>
<td>SIGN 201</td>
<td>Deaf English</td>
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<tr>
<td>SIGN 202</td>
<td>American Sign Language Culture</td>
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<tr>
<td>SIGN 210</td>
<td>American Sign Language Structure</td>
<td>3.0</td>
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<tr>
<td>SIGN 220</td>
<td>Translation: American Sign Language/English</td>
<td>3.0</td>
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<tr>
<td>SIGN 223</td>
<td>Principles of Interpreting</td>
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<td>SIGN 225</td>
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<tr>
<td>SIGN 239</td>
<td>Practicum</td>
<td>1.0</td>
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</tbody>
</table>

**PLUS**

- **Select three (3) courses from:**
  - LERN 49 Math Skills Review                     | 3.0   |
  - MATH 50 Pre-Algebra                            | 3.0   |

**Total Units 40.0 - 43.0**

### Sports Turf Management

#### Agricultural Sciences Department Certificate L0112

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

**Requirements for the Certificate**

- AGOR 1 Horticultural Science                     | 3.0   |
- AGOR 24 Integrated Pest Management               | 3.0   |
- AGOR 30 Ornamental Plants                        | 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 51 Tractor and Landscape Management         | 3.0   |
- AGOR 62 Landscape Irrigation                     | 3.0   |
- AGOR 63 Landscape Irrigation Systems Management  | 3.0   |

**Total Units 27.0**

### Television Production

#### Commercial and Entertainment Arts Certificate L0602

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

**Requirements for the Certificate**

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

**PLUS**

- **Select nine (9) units from:**
  - R-TV 18 Writing for Television/Film             | 3.0   |
  - R-TV 20 Television News Production              | 3.0   |

**Total Units 26.0**

### Theatrical Costumer

#### Theater Department Certificate L1001

The Theatrical Costumer Certificate provides the holder with the skills needed for employment as assistants in costume positions in the fields of theater, film, video, or historical recreation.

**Requirements for the Certificate**

- ARTD 15A Drawing: Beginning                      | 3.0   |
- FASH 10 Clothing Fundamentals                    | 3.0   |
- FASH 17 Textiles                                 | 3.0   |
- FASH 61 History of Costume and Fashion           | 3.0   |
- THTR 9 Introduction to Theatre Arts              | 3.0   |
- THTR 19 Theatrical Costuming                     | 3.0   |

**PLUS**

- **Select six (6) units from:**
  - ARTD 20 Design: Two Dimensional                | 3.0   |
  - THTR 14 Stagecraft                             | 3.0   |
  - THTR 15 Play Rehearsal and Performance          | 2.0   |
  - THTR 16 Theatrical Make-Up                      | 2.0   |
  - THTR 18 Technical Theater Practicum            | 1.0   |

**Total Units 24.0**

### Tree Care and Maintenance

#### Agricultural Sciences Department Certificate L0111

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

**Requirements for the Certificate**

- AGOR 1 Horticultural Science                     | 3.0   |
- AGOR 24 Integrated Pest Management               | 3.0   |
- AGOR 30 Ornamental Plants                        | 3.0   |
- AGOR 32 Landscaping and Nursery Management       | 3.0   |
### Water Technology

**Air Conditioning, Water & Welding Technologies**

**Certificate L0932**

This program is designed to train students who wish to: (1) seek employment in the water treatment industry, or (2) qualify for a specialized position within the water treatment industry. Material covered in the courses will be helpful to students who wish to prepare for Grade I, Grade II, or Grade III Water Treatment Operator certification examinations given by the State of California, Department of Health, and the AWWA Distribution Operation Certification. It also covers the responsibilities of water supply, State Health Department Title 17 Cross-Connections, and Title 22 Water Quality Standards.

#### Requirements for the Certificate

**Required courses:**

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

**Total Units** 18.0

### Welding - Semiautomatic Arc Welding

**Air Conditioning, Water & Welding Technologies**

**Certificate T0932**

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

#### Requirements for the Certificate

**Required courses:**

- WELD 40 Introduction to Welding 2.0 CSU
- WELD 50 Oxyacetylene Welding 2.0
- WELD 51 Basic Electric Arc Welding 2.0
- WELD 53A Welding Metallurgy 3.0 CSU
- WELD 60 Print Reading 3.0
- WELD 70A Beginning Arc Welding 3.0
- WELD 70B Intermediate Arc Welding 3.0
- WELD 70C Certification for Welders 3.0
- WELD 80 Fabrication and Construction Welding 3.0
- WELD 81 Pipe and Tube Welding 3.0
- WELD 91 Automotive Welding, Cutting and Modification 3.0

**Total Units** 30.0

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

### Welder - Gas Tungsten Arc Welding

**Air Conditioning, Water & Welding Technologies**

**Certificate T0932**

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

#### Requirements for the Certificate

**Required courses:**

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

**Total Units** 30.0

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

### Welder - Semiautomatic Arc Welding

**Air Conditioning, Water & Welding Technologies**

**Certificate T0932**

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

#### Requirements for the Certificate

**Required courses:**

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

**Process Total Units** 30.0

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

### Welder - Gas Tungsten Arc Welding

**Air Conditioning, Water & Welding Technologies**

**Certificate T0932**

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

#### Requirements for the Certificate

**Required courses:**

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

**Total Units** 30.0

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

SKILLS CERTIFICATES

Accounting - Bookkeeping
Accounting and Management Department Certificate E0504
The Accounting - Bookkeeping certificate provides the student with the basic skills and knowledge for entry-level positions within the clerical/accounting field. Common duties performed in this field are posting transactions to journals/ledgers, accounts receivable, accounts payable, inventory tracking/reporting, bank reconciliation, expense reporting, and account analysis.

Requirements for the Certificate
Required courses:
- BUSA 7 Principles of Accounting 5.0 CSU,UC
- or BUSA 72 Bookkeeping - Accounting 5.0
- or BUSA 53 Ten-Key Calculations, or 2.0

Plus the following courses:
- BUSA 70 Payroll and Tax Accounting 3.0
- BUSA 75 Using Microcomputers in Financial Accounting 1.0
- or BUSA 81 Work Experience in Accounting 1.0
- BUSA 76 Using Microcomputers in Managerial Accounting 1.0
- or BUSA 81 Work Experience in Accounting 1.0

Total Units 14.0 - 15.0

Administrative Assistant - Level I
Office Technology Department Certificate E0516
The Level I Certificate prepares students for entry-level clerical positions where keyboarding is the primary function.

Requirements for the Certificate
Required courses:
- BUSA 5 Business English 3.0
- or COMP 20 Computer Keyboarding 4.0 CSU
- or COMP 1A Computer Keyboarding 2.0 CSU
- or COMP 1B Computer Keyboarding 2.0 CSU
- or COMP 12 Office Computer Applications 4.0 CSU,UC
- or CIB 15 Microcomputer Applications 4.0 CSU,UC
- or COMP 28 Office Management Skills 3.0

Total Units 14.0

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

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

Total Units 11.0

Art: Aesthetics for Technology
Commercial and Entertainment Arts Certificate E1013
The certificate program is designed for the student thinking about joining the professional work force or seeking current job advancement. It provides design skills necessary in art and technology related industries. A variety of career opportunities are available in Art, Advertising Graphic Design, Animation, Journalism, and Multimedia. Working professionals or students who hold current certificates offered by the Office Technology Department, Photographers, Architecture and Design Department, the Family and Consumer Sciences Department, and wish to augment their design skills, would find this certificate beneficial.

Requirements for the Certificate
Required courses:
- ART 70 Computer Graphics: Introduction 3.0 CSU
- ART 171 Computer Graphics: 2: Layout and Design With QuarkXPress 3.0 CSU
- ARD 15A Drawing: Beginning 3.0 CSU,UC
- ARD 20 Design: Two Dimensional 3.0 CSU,UC

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

Total Units 12.0

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

Requirements for the Certificate
Required courses:
- BUSM 20 Principles of Business 3.0 CSU,UC

Special Information:
Students may qualify for an entry-level management position in California's diverse economy.

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

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

Total Units 9.0

Business: International - Level I
Accounting and Management Department Certificate E0527
This specialized business certificate is intended to prepare the student to work in the unique and dynamic environment of international business. This program also prepares the student as a business management generalist for companies conducting international trade. This program will afford career opportunities for entry-level employment in international sales and marketing.

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

Total Units 9.0

Special Information:
Students receiving financial aid need to declare the Level III Certificate as their goal to meet Financial Aid requirements.
Certificate E0529

Certificate as their goal to meet Financial Aid requirements.

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

Business: Retail Management - Level I
Accounting and Management Department
Certificate E0500

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

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

Total Units 10.0

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

Business: Workplace Competencies
Business Administration Department
Certificate E0532

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

Requirements for the Certificate
Required courses:
- BUSO 68 Business Mathematics 3.0
- BUSO 5 Business English 3.0
- BUSO 26 Oral Communications for Business 3.0
- FASH 15 Fashion Strategies 3.0 CSU
- FCS 41 Life Management 3.0 CSU

Total Units 15.0

Children's Program Certificate: General - Level I
Child Development
Certificate E1326

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

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

Total Units 12.0

CIS Professional Certificate in Database Management - Microcomputers
Computer Information Systems Department
Certificate E0715

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

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

Total Units 15.0

CIS Professional Certificate in Object-Oriented Design & Programming
Computer Information Systems Department
Certificate E0723

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

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

Total Units 10.0

CIS Professional Certificate in Windows Operating System Administration.
Computer Information Systems Department
Certificate E0720

This curriculum is designed for returning CIS professionals with several years of experience or current students who have completed several CIS courses. This program will prepare the student to develop skills to install, manage/administer, and troubleshoot Microsoft Windows workstations and server operating system. The courses in this certificate cover the major topics of industry standard certification exams.

Requirements for the Certificate
Required courses:
- CISN 21 Windows Operating System 4.0 CSU
- CISN 24 Microsoft NT Network System 4.0 CSU

Total Units 8.0

CIS Professional Certificate in C# Programming
Computer Information Systems Department
Certificate E0722

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

Requirements for the Certificate
Required courses:
- CISP 11 Programming in Visual Basic 4.0
  or
- CISP 21 Programming in Java 4.0 CSU,UC
  or
- CISP 31 Programming in C++ 4.0 CSU,UC
  or
- CISP 41 Programming in C# 4.0
  or
- CISP 14 Advanced Visual Basic Programming 4.0 CSU
  or
- CISP 24 Advanced Java Programming 4.0
  or
- CISP 34 Advanced C++ Programming 4.0 CSU,UC
  or
- CISP 44 Advanced Programming in C# 4.0

Total Units 14.0
Programs of Study Leading to a Certificate

**CIS Professional Certificate in LINUX**

Computer Information Systems Department

Certificate E0796

This certificate is designed for returning CIS professionals with several years of experience or current students who have completed several CIS courses. This program will prepare the student to install, manage, and troubleshoot workstations, servers, and local area networks using the Linux operating system. The certificate covers the major topics of an industry standard certification exam for Linux.

**Requirements for the Certificate**

<table>
<thead>
<tr>
<th>Required courses:</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSN 31 Linux Operating System 4.0 CSU</td>
</tr>
<tr>
<td>CSN 34 LINUX Networking and Security 4.0 CSU</td>
</tr>
<tr>
<td>CSN 31 Web Servers 4.0</td>
</tr>
<tr>
<td><strong>Total Units</strong> 12.0</td>
</tr>
</tbody>
</table>

**CIS Professional Certificate in SQL**

Computer Information Systems Department

Certificate E0730

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

**Requirements for the Certificate**

<table>
<thead>
<tr>
<th>Required courses:</th>
</tr>
</thead>
<tbody>
<tr>
<td>CISD 21 Database Management 4.0</td>
</tr>
<tr>
<td>CISD 31 Database Management - Oracle 4.0</td>
</tr>
<tr>
<td>CISD 40 Database Design 3.0</td>
</tr>
<tr>
<td><strong>Total Units</strong> 11.0</td>
</tr>
</tbody>
</table>

**CIS Professional Certificate in C++ Programming**

Computer Information Systems Department

Certificate E0714

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

**Requirements for the Certificate**

<table>
<thead>
<tr>
<th>Required courses:</th>
</tr>
</thead>
<tbody>
<tr>
<td>CISP 10 Principles of Object-Oriented Design 2.0</td>
</tr>
<tr>
<td>CISP 34 Advanced C++ Programming 4.0 CSU, UC</td>
</tr>
<tr>
<td><strong>Total Units</strong> 14.0</td>
</tr>
</tbody>
</table>

**CIS Professional Certificate in Oracle**

Computer Information Systems Department

Certificate E0717

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

**Requirements for the Certificate**

<table>
<thead>
<tr>
<th>Required courses:</th>
</tr>
</thead>
<tbody>
<tr>
<td>CISP 31 Programming in C++ 4.0 CSU, UC</td>
</tr>
<tr>
<td><strong>Total Units</strong> 11.0</td>
</tr>
</tbody>
</table>

**CIS Professional Certificate in Microsoft SQL Server**

Computer Information Systems Department

Certificate E0716

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

**Requirements for the Certificate**

<table>
<thead>
<tr>
<th>Required courses:</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSN 11 Telecommunications/ Networking Fundamentals 4.0 CSU</td>
</tr>
<tr>
<td>CSN 24 Microsoft NT Network System Administration 4.0 CSU</td>
</tr>
<tr>
<td>CSN 41 Novell Netware Systems Administration 4.0 CSU</td>
</tr>
<tr>
<td>CSN 34 LINUX Networking and Security 4.0 CSU</td>
</tr>
<tr>
<td>CSN 51 Cisco CCNA Networking Fundamentals and Routing 4.0 CSU</td>
</tr>
<tr>
<td><strong>Total Units</strong> 16.0</td>
</tr>
</tbody>
</table>
## CIS Professional Certificate in Telecommunications
**Computer Information Systems Department Certificate E0718**

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

### Requirements for the Certificate
**Required courses:**
- CISN 11 Telecommunications Networking Fundamentals 4.0 CU
- CISN 24 Windows Network System Administration 4.0
- CISN 51 CISCO Networking Fundamentals and Routing 4.0

**Total Units: 12.0**

## CIS Professional Certificate in Visual Basic Programming
**Computer Information Systems Department Certificate E0719**

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

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

**Total Units: 14.0**

## Coaching
**Physical Education Department Certificate E0804**

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

### Requirements for the Certificate
**Required courses:**
- PE 13 Sports Officiating 3.0 CSU
- PE 34 Fitness for Living 3.0 CSU
- PE 44 Theory of Coaching 3.0 CSU
- PE 81 Work Experience for Coaching 2.0

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

**Total Units: 11.0**

## Culinary Arts - Level I
**Consumer Science and Design Technologies Certificate E1334**

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

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

**Plus:**
- Select six (6) units from:
  - HRM 61 Menu Planning 3.0 CSU
  - HRM 62 Catering 3.0 CSU
  - NF 16 Creative Foods 3.0
  - NF 62 Meal Management 3.0 CSU

**Total Units: 14.5**

## Data Entry
**Office Technology Department Certificate E0791**

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

### Requirements for the Certificate
**Required courses:**
- COMP 2 Intermediate Computer Keyboarding 4.0
- COMP 12 Office Computer Applications 4.0 CSU
- CISP 15 Microcomputer Applications 4.0 CSU
- COMP 18 Data Entry 3.0

**Total Units: 11.0**

## Educational Paraprofessional - Level I
**Psychology and Education Department Certificate E2187**

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

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

**Total Units: 13.0**

## Electronic Assembly and Fabrication
**Electronics and Computer Technology Department Certificate E0929**

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

### Requirements for the Certificate
**Required courses:**
- EST 50 Electrical Fundamentals 4.0
- ELEC 62 Advanced Surface Mount Assembly and Rework 2.0
- MATH 50 Electrical Fundamentals for Cable Installations 4.0

**Total Units: 12.0**

### Recommended Electives:
- ELEC 63 Electronic Assemblies Recertification
### Programs of Study Leading to a Certificate

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

**Requirements for the Certificate**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELEC 11</td>
<td>Technical Applications in Microcomputers</td>
<td>3.0 CSU</td>
</tr>
<tr>
<td>CISB 15</td>
<td>Microcomputer Applications</td>
<td>4.0 CSU/UC</td>
</tr>
<tr>
<td>EST 50</td>
<td>Electrical Fundamentals</td>
<td>4.0</td>
</tr>
<tr>
<td>EST 52</td>
<td>Fabrication Techniques for Cable Installations</td>
<td>4.0</td>
</tr>
<tr>
<td>EST 54</td>
<td>Cabling and Wiring Standards</td>
<td>4.0</td>
</tr>
<tr>
<td><strong>Total Units</strong></td>
<td></td>
<td><strong>15.0 - 16.0</strong></td>
</tr>
</tbody>
</table>

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

**Requirements for the Certificate**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>EMT 90</td>
<td>Emergency Medical Technician I</td>
<td>10.0</td>
</tr>
<tr>
<td><strong>Total Units</strong></td>
<td></td>
<td><strong>10.0</strong></td>
</tr>
</tbody>
</table>

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

**Application Requirements and Selection Procedures**

- **Application Requirements:**
  - a) Applicant must be 18 years of age upon entrance into the course.
  - b) High school graduate or equivalent.
  - c) File a College application and be accepted as a student at Mt. San Antonio College.
  - d) A physical examination, proof of certain immunizations, 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 complete the Essential Functions in the Emergency Medical Technician Program.

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

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

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

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

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

**Requirements for the Certificate**

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

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

**Requirements for the Certificate**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>FASH 8</td>
<td>Introduction to Fashion</td>
<td>3.0 CSU</td>
</tr>
<tr>
<td>FASH 10</td>
<td>Clothing Construction I</td>
<td>3.0 CSU</td>
</tr>
<tr>
<td>FASH 15</td>
<td>Fashion Strategies</td>
<td>3.0 CSU</td>
</tr>
<tr>
<td>FASH 17</td>
<td>Textiles</td>
<td>3.0 CSU/UC</td>
</tr>
<tr>
<td>FASH 30</td>
<td>Fashion Design and Product Development I</td>
<td>3.0</td>
</tr>
<tr>
<td><strong>Total Units</strong></td>
<td></td>
<td><strong>15.0</strong></td>
</tr>
</tbody>
</table>
Fire Administration
Fire Technology Department
Certificate E2130
The Fire Administration Certificate prepares public agency firefighters or private fire personnel for career advancement and provides personal development. This certificate prepares students for positions as chief officers such as battalion chief, deputy chief, or division chief. Content focuses on advanced job skills in life safety, interpersonal skills, human resource management, investigation, command presence, and implementation of local/state fire regulations. This certificate meets the requirements of the California State Board of Fire Services Certified Fire Officer Program.

Requirements for the Certificate
Required courses:

- FIRE 10 Arson and Fire Investigation 3.0 CSU
- FIRE 20 Fire Instructor 1A 2.0
- FIRE 21 Fire Instructor 1B 2.0
- FIRE 30 Fire Management 1 2.0
- FIRE 50 Fire Command 1A 2.0

Total Units 17.0

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

Requirements for the Certificate
Required courses:

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

Total Units 16.0

Fire Management
Fire Technology Department
Certificate E2131
The Fire Management Certificate prepares public agency firefighters or private fire personnel for career advancement and provides personal development. This certificate prepares students for career advancement as supervisors and managers. The student will develop leadership, management, and supervisory competencies including leadership philosophy, ethics, diversity, and the difference between managing and leading people. Content focuses on job skills in organizational management, human resources, risk management, diversity, interpersonal skills, personnel and equipment, fire ground tactics and strategy, and investigation techniques. This certificate meets the requirements of the California State Board of Fire Services Certified Fire Officer Program.

Requirements for the Certificate
Required courses:

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

Total Units 12.0

Geographic Information Systems
History, Art History, Geography, Political Science
Certificate E2200
The certificate program in Geographic Information Systems provides students in various disciplines the opportunity to develop expertise in the creation, manipulation, analysis, and display of geographic information. This exciting technology has applications in many fields including environmental assessment, analysis of natural hazards, site analysis for business and industry, criminal justice, real estate, location analysis, resource management, land use planning, and global changes and systems modeling. This program was developed with two intended groups in mind: 1. Currently enrolled students who wish to focus their training and skills for a career in GIS 2. Currently employed persons who need or wish to enhance their knowledge of GIS for better understanding or to support their current job activities. The program starts with a set of basic courses in geographic information technology and map reading.

Requirements for the Certificate
Required courses:

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

Total Units 9.0

Hospitability: Food Services
Consumer Science and Design Technologies
Certificate E1390
This certificate prepares the holder to enter the food service field as a skilled food service worker in either food preparation or service.

Requirements for the Certificate
Required courses:

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

Total Units 7.5

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

Requirements for the Certificate
Required courses:

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

Total Units 11.0
Programs of Study Leading to a Certificate

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

Requirements for the Certificate

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

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

Requirements for the Certificate

Required courses:
- HRM 51 Introduction to Hospitality 3.0 CSU
- HRM 52 Food Safety and Sanitation Management 1.5 CSU
- HRM 53 Dining Room Service Management 3.0 CSU
- HRM 91 Work Experience in Restaurant/Hospitality 1.0 CSU
Total Units 8.5

Information and Operating Systems Security

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

Requirements for the Certificate

Required courses:
- CSS 11 Practical Computer Security 2.0
- CSS 13 Principles of Information 4.0
- CSS 15 Operating Systems Security 4.0
Total Units 10.0

Introduction to Computer Information Technology

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

Requirements for the Certificate

Required courses:
- CSB 11 Computer Information Systems 3.5 CSU,UC
- CSW 11 The Internet 4.0 CSU
- COMP 12 Office Computer Applications or Microcomputer Applications 4.0 CSU,UC
Total Units 11.5

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

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

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

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

Requirements for the Certificate

Required courses:
- NURS 5 Psychiatric Nursing 3.0 CSU
- NURS 8 Medical-Surgical Nursing: Circulation and Oxygenation 5.0 CSU
- NURS 9 Leadership in Nursing 1.0 CSU
- NURS 10 Medical-Surgical Nursing: Integration/Regulation 4.0 CSU
- NURS 11 Preceptorship in Nursing 2.0 CSU
Total Units 15.0

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

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

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

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

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

c) All students will need to bring official proof of high
school graduation, GED, or college graduation from an accredited institution in the United States.

APPOINTMENTS FOR ELIGIBILITY VERIFICATION WILL ONLY BE MADE DURING THE FOLLOWING MONTHS:

- September 1 - October 31
- March 1 - April 30
- September 1 - October 31

Students should also be aware that once they have been admitted to the Nursing program and before beginning the Clinical portion of the program, they will need to be able to pass both a criminal background check, including a screening by the Office of Inspector General for welfare or Social Security fraud, as well as testing negative for drug use.

ALL APPLICANTS ARE REQUIRED TO MEET THE ESSENTIAL FUNCTIONS FOR SUCCESS IN THE NURSING PROGRAM.

Physical Demands:

- Perform prolonged, extensive, or considerable standing/walking, lifting positioning, pushing, and/or transferring patients
- Possess the ability to perform fine motor movements with hands and fingers
- Possess the ability for extremely heavy effort (lift/carry 50 lbs. or more)
- Perform considerable reaching, stooping, bending, kneeling and crouching.

Sensory Demands:

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

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

English Language Skills:

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

### Machine Operator

**Aircraft Maintenance Technician & Manufacturing Technology Certificate E0956**

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

**Requirements for the Certificate**

- **Required courses:**
  - MFG 11 Manual and CNC 2.0 CU
  - MFG 12 Advanced Manufacturing 2.0 CU
  - MFG 58 Blueprint Reading for Manufacturing 2.0
  - MFG 70 Technical Mathematics - Manufacturing Applications 2.0 CU
  - MFG 85 Manual CNC (Computerized Numerical Control) Operations 2.0 CU

- **PLUS**
  - Select one (1) course from:
    - MFG 38 MasterCAM 2.0 CU
    - MFG 39 SurfCAM 2.0 CU
  - **Total Units** 12.0

**MasterCAM**

**Aircraft Maintenance Technician & Manufacturing Technology Certificate E0927**

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

**Requirements for the Certificate**

- **Required courses:**
  - MFG 11 Manufacturing Processes I 2.0 CU
  - MFG 38 MasterCAM I 2.0 CU
  - MFG 38B Advanced MasterCAM 2.0 CU
  - MFG 85 Manual CNC Program 2.0
  - **Total Units** 6.0

### Nutrition Program Assistant - Level I

**Consumer Science and Design Technologies Certificate E1331**

This certificate prepares students to work for community agencies and programs as nutrition assistants.

**Requirements for the Certificate**

- **Required courses:**
  - HRM 52 Food Safety and Sanitation 1.5 CU
  - NF 20 Principles of Foods With Lab 3.0 CU
  - NF 25 Essentials of Nutrition 3.0 CU,UC
  - **Total Units** 6.0

**Nutrition Program Assistant - Level II: Child Program Emphasis**

**Consumer Science and Design Technologies Certificate E1336**

This certificate prepares students to work for community agencies such as the Federal Supplemental Nutrition Program for Women, Infants and Children (WIC), Head Start, and School Food Service as nutrition assistants.

Coursework is designed to provide basic skills and knowledge necessary to entry-level positions in nutrition programs that serve children.

**Requirements for the Certificate**

- **Required courses:**
  - NF 28 Cultural and Ethnic Foods 3.0 CU,UC
  - CHLD 10 Child Growth and Development 3.0 CU,UC
  - **Total Units** 10.5

**Nutrition Program Assistant - Level II: Weight Management Program Emphasis**

**Consumer Science and Design Technologies Certificate E1334**

This certificate prepares students to work as nutrition assistants in the public or private sector. Coursework is designed to provide the basic skills and knowledge necessary for entry-level positions in a variety of businesses, agencies and programs that focus on weight management.

**Requirements for the Certificate**

- **Required courses:**
  - HRM 52 Food Safety and Sanitation 1.5 CU
  - NF 20 Principles of Foods With Lab 3.0 CU
  - NF 25 Essentials of Nutrition 3.0 CU,UC
  - **Total Units** 16.5
### Welding Air Conditioning, Water & Welding Technologies Certificate E0919

This program is designed to prepare the student for employment in the broad field of welding and (1) leads to occupations in manufacturing and repair; and (2) helps prepare the student for positions in supervision. Courses in the welding curriculum prepare students for welding certificates. The College is a testing agency for the City of Los Angeles, and is authorized to administer the performance test for the Structural Welding certificate. There is a $50 charge for students and $60 for non-students to take this test. Topics of the written portion of the test which is administered by the City are reviewed in various welding courses offered by the College.

#### Requirements for the Certificate

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

**Total Units** 8.0

**Recommended Electives:**
- MFG 70 Technical Mathematics - Manufacturing Applications
- WELD 60 Print Reading and Computations for Welders
- WELD 70C Certification for Welders T1279

---

### SurfCAM Aircraft Maintenance Technician & Manufacturing Technology Certificate E0925

This certificate is a direct path for manufacturing students to write, edit, download and run Computerized Numerical Control (CNC) machines, and provides a strong background in the basics of both manual and CNC machines.

#### Requirements for the Certificate

**Required courses:**
- MFG 11 Manufacturing Processes I 2.0 CSU
- MFG 39 SurfCAM I 2.0 CSU
- MFG 39B SurfCAM II 2.0 CSU
- MFG 85 Manual CNC (Computerized Numerical Control) Operations 2.0 CSU

**Total Units** 8.0

---

### Parametric Solid Modeling Aircraft Maintenance Technician & Manufacturing Technology Certificate E0923

With the strong relationship between AutoCAD and Manufacturing, this mini certificate glides the student through AutoDesk’s 2-D, 3-D, Mechanical Desktop, and Inventors packages and relates them to real-life industrial usage.

#### Requirements for the Certificate

**Required courses:**
- MFG 15 AutoCAD 2D 2.0
- MFG 17 3-D CAD - Mechanical Modeling 2.0
- MFG 19 Parametric Solid Modeling 2.0 for Manufacturing
- MFG 25 Advanced Parametric Solid Modeling for Manufacturing 2.0
- MFG 27 Autodesk Inventor 2.0

**Total Units** 10.0

---

<table>
<thead>
<tr>
<th>Program</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>SurfCAM</td>
<td>Aircraft Maintenance Technician &amp; Manufacturing Technology Certificate E0925</td>
</tr>
<tr>
<td>Welding</td>
<td>Air Conditioning, Water &amp; Welding Technologies Certificate E0919</td>
</tr>
<tr>
<td>Parametric Solid Modeling</td>
<td>Aircraft Maintenance Technician &amp; Manufacturing Technology Certificate E0923 with AutoCAD and Manufacturing</td>
</tr>
</tbody>
</table>

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Section 8

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

## PROGRAMS OF STUDY LEADING TO AN ASSOCIATE DEGREE

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

## GENERAL REQUIREMENTS FOR AN ASSOCIATE DEGREE

### Application for Graduation

The Application for Graduation is the student’s notification to 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](http://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:

<table>
<thead>
<tr>
<th>Semester</th>
<th>Deadline Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fall</td>
<td>end of the ninth week</td>
</tr>
<tr>
<td>Winter</td>
<td>end of the ninth week</td>
</tr>
<tr>
<td>Spring</td>
<td>end of the ninth week</td>
</tr>
<tr>
<td>Summer</td>
<td>end of the ninth week</td>
</tr>
</tbody>
</table>

### Residency Requirement

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

### Additional Requirements for the Associate of Science Degree

Students should check the Schedule of Classes in the Key Dates to Remember section for specific deadline dates for any given semester. Applications received after the deadline will be processed with the next graduation cycle. Students may apply for graduation one semester prior to completing all required coursework. Once the degree has been conferred, the degree will be posted to the student’s academic record and will appear on the transcript. Students will also receive their diplomas in the mail thereafter. If a student is denied graduation, he or she will be informed in writing.

### Multiple Degrees

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

## Residency Requirement

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

### Additional Requirements for the Associate of Arts Degree

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

## Graduation Requirements 2009-2010

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

### Unit Requirement

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

### General Education Requirements

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

### Physical Well-Being Requirement

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

### Reading Competency

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

### Math Competency

- This requirement is met by completing one of the following with a grade of "C" or better:
  - Math 71 Intermediate Algebra,
  - Math 71B Intermediate Algebra - Second Half
  - or Math 71X Practical Intermediate Algebra
  - or Completing a more advanced college level mathematics course.

### GPA Requirement

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

### Residency Requirement

- The residency requirement for Mt. San Antonio College can be met in either of two ways:
  1. 12 units in residence and enrollment in last semester, or
  2. 45 units in residence if the last semester is not at Mt. SAC.

### Additional Requirements for the Associate of Science Degree

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

### Additional Requirements for the Associate of Arts Degree

Students must complete a pattern of 18 or more units from the courses identified within a specific area of emphasis with a minimum grade of "C" in all courses. See pages 96-100 for listings of the Associate in Arts degree majors in Liberal Arts & Sciences areas of emphasis.
GENERAL EDUCATION REQUIREMENTS

Philosophy Statement

General education is the distinguishing feature of higher education. It is a broadly-based core of humanistic knowledge and abilities, the acquisition of which is the distinctive characteristic of the educated person. General education courses emphasize the ability to reason, to examine issues from different perspectives, to challenge authority, and to communicate ideas logically and confidently. They instill open-mindedness, respect for differences among people, and knowledge of self. By exposing students to different fields of study, general education courses provide an understanding of the human condition and of human accomplishments and encourage a lifelong interest in learning. Together with other Mt. San Antonio College degree requirements, the general education component of the associate degree prepares students to:

- transfer to and function successfully in a baccalaureate degree-granting institution;
- enter the work force as a competent, productive citizen;
- live a richer, more rewarding life.

General education courses are not primarily skills-based, nor are they limited to, or more appropriate for, majors in a specialized field of study. Courses that fulfill general education requirements must:

1. Require post-secondary level skills in reading, writing, quantitative reasoning, and critical thinking.
2. Improve students’ abilities to:
   - communicate oral and written ideas effectively;
   - define problems, design solutions, critically analyze results;
   - use available media to access and retrieve reliable information for data gathering and research;
   - work effectively, both cooperatively and independently;
   - develop and question personal and societal values, make informed choices, and accept responsibility for their decisions;
   - function as active, responsible, ethical citizens;
   - acquire the curiosity and skills essential for lifelong learning.
3. Impart understanding, knowledge, and appreciation of:
   - our shared scientific, technological, historical, and artistic heritage, including the contributions of women, ethnic minorities, and non-Western cultures;
   - the earth’s ecosystem, including the processes that formed it and the strategies that are necessary for its maintenance;
   - human social, political, and economic institutions and behavior, including their interrelationships;
   - the psychological, social, and physiological dimensions of men and women as individuals and as members of society.

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

A. Communication and Critical Thinking

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

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

B. Science and Mathematics

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

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

C. Humanities

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

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

D. Social Sciences

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

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

E. Lifelong Understanding and Self-Development

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

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

Adapted from CSU Executive Order 595 and Title 5 Section 40405.1
### Programs Leading to an Associates Degree

#### AREA A: Communication in the English Language (6 units):
Select two (2) courses from the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 1A</td>
<td>Freshman Composition, or</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</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHYS 24G</td>
<td>General Physics</td>
</tr>
<tr>
<td>PHYS 2BG</td>
<td>General Physics</td>
</tr>
<tr>
<td>PHYS 4A</td>
<td>Engineering Physics</td>
</tr>
</tbody>
</table>

#### LIFE SCIENCES

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>AGOR 1</td>
<td>Horticultural Science</td>
</tr>
<tr>
<td>ANAT 10A</td>
<td>Introductory Human Anatomy</td>
</tr>
<tr>
<td>ANAT 10B</td>
<td>Introductory Human Physiology</td>
</tr>
<tr>
<td>ANAT 35</td>
<td>Human Anatomy</td>
</tr>
<tr>
<td>ANAT 36</td>
<td>Human Physiology</td>
</tr>
<tr>
<td>ANTH 1</td>
<td>Biological Anthropology</td>
</tr>
<tr>
<td>ANTH 1H</td>
<td>Biological Anthropology — Honors</td>
</tr>
<tr>
<td>ANTH 1L</td>
<td>Biological Anthropology Laboratory</td>
</tr>
<tr>
<td>BIOL 1</td>
<td>General Biology</td>
</tr>
<tr>
<td>BIOL 2</td>
<td>Plant and Animal Biology</td>
</tr>
<tr>
<td>BIOL 3</td>
<td>Ecology and Field Biology</td>
</tr>
<tr>
<td>BIOL 4</td>
<td>Biology for Majors</td>
</tr>
<tr>
<td>BIOL 4H</td>
<td>Biology for Majors — Honors</td>
</tr>
<tr>
<td>BIOL 6</td>
<td>Humans and the Environment</td>
</tr>
<tr>
<td>BIOL 6L</td>
<td>Humans and the Environment Laboratory</td>
</tr>
<tr>
<td>BIOL 17</td>
<td>Neurobiology and Behavior</td>
</tr>
<tr>
<td>BIOL 20</td>
<td>Marine Biology</td>
</tr>
<tr>
<td>BIOL 21</td>
<td>Marine Biology Laboratory</td>
</tr>
<tr>
<td>BIOL 34</td>
<td>Fundamentals of Genetics</td>
</tr>
<tr>
<td>MCB 1</td>
<td>Principles of Microbiology</td>
</tr>
<tr>
<td>MCB 22</td>
<td>Microbiology</td>
</tr>
<tr>
<td>PSYC 1B</td>
<td>Biological Psychology</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</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 1</td>
<td>Art, Artists and Society</td>
</tr>
<tr>
<td>ART 4</td>
<td>Basic Studio Arts</td>
</tr>
<tr>
<td>ART 15A</td>
<td>Drawing: Beginning</td>
</tr>
<tr>
<td>ART 20</td>
<td>Design: Two-Dimensional</td>
</tr>
<tr>
<td>ART 25A</td>
<td>Painting: Beginning</td>
</tr>
<tr>
<td>ARTG 20</td>
<td>Art, Artists and Society</td>
</tr>
<tr>
<td>ARTS 22</td>
<td>Design: Three-Dimensional</td>
</tr>
<tr>
<td>ARTS 30A</td>
<td>Ceramics: Beginning</td>
</tr>
<tr>
<td>ARTS 40A</td>
<td>Sculpture: Beginning</td>
</tr>
<tr>
<td>MUS 7</td>
<td>World Music</td>
</tr>
<tr>
<td>MUS 14B</td>
<td>American Folk Music</td>
</tr>
<tr>
<td>MUS 15</td>
<td>Rock Music History and Appreciation</td>
</tr>
<tr>
<td>MUS 17</td>
<td>History of Music Appreciation — Honors</td>
</tr>
<tr>
<td>MUS 18H</td>
<td>History of World Civilization — Honors</td>
</tr>
<tr>
<td>MUS 19H</td>
<td>History of World Civilization</td>
</tr>
<tr>
<td>MUS 20</td>
<td>Music Literature Survey</td>
</tr>
<tr>
<td>MUS 21B</td>
<td>Music Literature Survey</td>
</tr>
<tr>
<td>MUS 12</td>
<td>History of Jazz</td>
</tr>
<tr>
<td>MUS 13</td>
<td>Introduction to Music Appreciation</td>
</tr>
<tr>
<td>MUS 17H</td>
<td>Introduction to Music Appreciation — Honors</td>
</tr>
<tr>
<td>MUS 144</td>
<td>Music Literature Survey</td>
</tr>
<tr>
<td>MUS 14B</td>
<td>American Folk Music</td>
</tr>
<tr>
<td>MUS 15</td>
<td>Rock Music History and Appreciation</td>
</tr>
<tr>
<td>MUS 17</td>
<td>History of Music Appreciation — Honors</td>
</tr>
<tr>
<td>MUS 18H</td>
<td>History of World Civilization — Honors</td>
</tr>
<tr>
<td>MUS 19H</td>
<td>History of World Civilization</td>
</tr>
<tr>
<td>MUS 20</td>
<td>Music Literature Survey</td>
</tr>
<tr>
<td>MUS 21B</td>
<td>Music Literature Survey</td>
</tr>
<tr>
<td>MUS 12</td>
<td>History of Jazz</td>
</tr>
<tr>
<td>MUS 13</td>
<td>Introduction to Music Appreciation</td>
</tr>
<tr>
<td>MUS 17H</td>
<td>Introduction to Music Appreciation — Honors</td>
</tr>
</tbody>
</table>

#### GENERAL EDUCATION REQUIREMENTS FOR 2009-2010 (continued)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIST 3H</td>
<td>History of World Civilization — Honors</td>
</tr>
<tr>
<td>HIST 3H</td>
<td>History of World Civilization</td>
</tr>
<tr>
<td>HIST 1H</td>
<td>History of the U.S. — Honors</td>
</tr>
<tr>
<td>HIST 4</td>
<td>History of World Civilization</td>
</tr>
</tbody>
</table>

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

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**2009-10 Mt. San Antonio College Catalog**

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**2009-10 Mt. San Antonio College Catalog**
Courses may not be double counted to satisfy more than one area, even if a course is listed in more than one area.

AREA D:

Social, Political and Economic Institutions

(6 units): U.S. History and American Institutions

Select one (1) course from the following:

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

*HIST 36 Women in American History – Beyond the Stereotypes
*HIST 40 History of the Mexican American

AREA E:

Lifelong Understanding and Self-Development

(3 units):

Select one (1) course from the following:

AD 3 Chemical Dependency: Intervention, Treatment and Recovery

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

ALPHABETICAL LISTING — ASSOCIATE OF SCIENCE DEGREE (A.S.)

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

A

Accounting ........................................... 69
Administrative Assistant ......................... 69
Advertising Design and Illustration .......... 69
Agri-Technology .................................. 69

Architectural Technology — Technology Concentration ........................................... 72
Aviation Science .................................... 72

B

Business: Management ............................ 72
Business: Retail Management .................. 72
Chemical Laboratory Technician .............. 72

Business Management ................................ 72
Business: Retail Management .................. 72

B- C

Commercial Flight .................................. 73

C

Computer Graphics Design/Photography ... 73
Computer Network Administration and Security Management ......................... 74

Computer Graphics Design/Photography ... 73
Computer Network Administration and Security Management ......................... 74

R
### Programs Leading to an Associates Degree

<table>
<thead>
<tr>
<th>ALPHABETICAL LISTING — ASSOCIATE OF SCIENCE DEGREE (A.S.) (continued)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>B-C</strong> (continued)</td>
</tr>
<tr>
<td>Computer Programmer – Database Management Systems</td>
</tr>
<tr>
<td>Computer Programming</td>
</tr>
<tr>
<td>Construction Inspection</td>
</tr>
<tr>
<td>Correctional Sciences</td>
</tr>
<tr>
<td><strong>D-E</strong></td>
</tr>
<tr>
<td>Educational Paraprofessional</td>
</tr>
<tr>
<td>Electronics and Computer Engineering Technology</td>
</tr>
<tr>
<td>Engineering Design Technology</td>
</tr>
<tr>
<td>Equipment Technology</td>
</tr>
<tr>
<td>Escrow Management</td>
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<td><strong>F</strong></td>
</tr>
<tr>
<td>Family and Consumer Sciences</td>
</tr>
<tr>
<td>Fashion Design</td>
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<tr>
<td>Fashion Merchandising</td>
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<tr>
<td>Fire Technology</td>
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<tr>
<td>Fire Technology – Administration</td>
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<td>Fire Technology – Administrative Communications</td>
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<td>Fire Technology – Administrative Law</td>
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<td>Fire Technology – Fire Management</td>
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<td>Fire Technology – Fire Prevention</td>
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<td>Fire Technology – Fire Training</td>
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<tr>
<td>Fire Technology – Private Fire Service</td>
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<tr>
<td><strong>G-H</strong></td>
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<tr>
<td>General Business</td>
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<tr>
<td>Histologic Technician Training</td>
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<tr>
<td>Horse Ranch Management</td>
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<tr>
<td>Hospitality and Restaurant Management</td>
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<tr>
<td>Human Resource Management</td>
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<tr>
<td><strong>I-J-K</strong></td>
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<tr>
<td>Interior Design</td>
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<tr>
<td>Interior Design – Kitchen and Bath Design</td>
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<tr>
<td>International Business</td>
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<td><strong>L</strong></td>
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<tr>
<td>Law Enforcement</td>
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<tr>
<td>Licensed Vocational Nurse to RN</td>
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<tr>
<td>Livestock Management</td>
</tr>
<tr>
<td><strong>M-N</strong></td>
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<tr>
<td>Manufacturing Technology</td>
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<tr>
<td>Marketing Management</td>
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<tr>
<td>Mental Health Technology – Psychiatric Technician</td>
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<tr>
<td>Nursing</td>
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<tr>
<td><strong>O-Q</strong></td>
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<tr>
<td>Ornamental Horticulture</td>
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<tr>
<td>Paralegal/Legal – Bankruptcy Specialty</td>
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<td>Paralegal/Legal – Corporations/ Business Specialty</td>
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<td>Paralegal/Legal – Criminal Specialty</td>
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<td>Paralegal/Legal – Family Law Specialty</td>
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<tr>
<td>Paralegal/Legal – Landlord/Tenant Specialty</td>
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<td>Park &amp; Sports Turf Management</td>
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<tr>
<td>Pet Science</td>
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<tr>
<td>Photography</td>
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<tr>
<td>Physical Education</td>
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<tr>
<td>Psychiatric Technician to RN</td>
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<tr>
<td><strong>R</strong></td>
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<tr>
<td>Radio Broadcasting: Behind the Scenes</td>
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<tr>
<td>Radio Broadcasting: On the Air</td>
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<td>Radiologic Technology</td>
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<tr>
<td>Real Estate</td>
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<tr>
<td>Real Estate Appraisal</td>
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<tr>
<td>Registered Veterinary Technology</td>
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<tr>
<td>Respiratory Therapy</td>
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<tr>
<td><strong>S-T</strong></td>
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<tr>
<td>Sign Language/Interpreting</td>
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<tr>
<td>Small Business Management</td>
</tr>
<tr>
<td>Television Production</td>
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<tr>
<td><strong>U-V-W</strong></td>
</tr>
<tr>
<td>Welding</td>
</tr>
</tbody>
</table>

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

#### Arts Division
- Advertising Design and Illustration | 69
- Animation | 71
- Computer Graphics Design/Photography | 73
- Photography | 89
- Radio Broadcasting: Behind the Scenes | 90
- Radio Broadcasting: On the Air | 90
- Television Production | 94

#### Business Division
- Accounting | 69
- Administrative Assistant | 69
- Business: Management | 72
- Business: Retail Management | 72
- Child Development | 73
- Computer Network Administration & Security Management | 74
- Computer Programmer – Database Management Systems | 74
- Computer Programming | 74
- Escrow Management | 77
- Family and Consumer Sciences | 77
- Fashion Design | 77
- Fashion Merchandising | 78
- General Business | 78
- Hospitality and Restaurant Management | 80
- Human Resource Management | 81
- Interior Design | 81
- Interior Design – Kitchen and Bath Design | 81
- International Business | 84
- Marketing Management | 85
- Paralegal/Legal – Bankruptcy Specialty | 86
- Paralegal/Legal – Corporations/ Business Specialty | 87
- Paralegal/Legal – Criminal Specialty | 87
- Paralegal/Legal – Family Law Specialty | 87
- Paralegal/Legal – Landlord/Tenant Specialty | 88
- Park & Sports Turf Management | 88
- Pet Science | 88
- Photography | 89
- Physical Education | 89
- Psychiatric Technician to RN | 89

#### Humanities & Social Sciences Division
- Educational Paraprofessional | 75
- Sign Language/Interpreting | 94

#### Natural Sciences Division
- Agricultural Technology | 69
- Architectural Technology – Design Concentration | 71
- Architectural Technology – Technology Concentration | 72
- Chemical Laboratory Technician | 72
- Equipment Technology | 77
- Histologic Technician Training | 80
- Horse Ranch Management | 80
- Livestock Management | 83
- Ornamental Horticulture | 86
- Park & Sports Turf Management | 88
- Pet Science | 88
- Registered Veterinary Technology | 92

#### Physical Education Division
- Physical Education | 89

#### Technology & Health Division
- Air Conditioning and Refrigeration | 70
- Airframe and Aircraft Powerplant | 75
- Aircraft Maintenance Technology – Day | 70
- Airframe and Aircraft Powerplant Maintenance Technology – Evening | 70
- Alcohol/Drug Counseling | 71
- Architectural Technology | 71
- Aviation Science | 72
- Commercial Flight | 73
- Computer and Networking Technology | 74
- Construction Inspection | 74
- Correctional Sciences | 75
- Electronics and Computer Engineering Technology | 75
- Emergency Medical Services | 75
- Engineering Design Technology | 76
- Fire Technology | 78
- Fire Technology – Administration | 78
- Fire Technology – Administrative Communications | 78
- Fire Technology – Administrative Law | 78
- Fire Technology – Fire Management | 79
- Fire Technology – Fire Prevention | 79
- Fire Technology – Fire Training | 79
- Fire Technology – Private Fire Service | 79
- General Business | 80
- Hospitality and Restaurant Management | 80
- Human Resource Management | 81
- Interior Design | 81
- Interior Design – Kitchen and Bath Design | 81
- International Business | 82
- Marketing Management | 85
- Paralegal/Legal – Bankruptcy Specialty | 86
- Paralegal/Legal – Corporations/ Business Specialty | 87
- Paralegal/Legal – Criminal Specialty | 87
- Paralegal/Legal – Family Law Specialty | 87
- Paralegal/Legal – Landlord/Tenant Specialty | 88
- Park & Sports Turf Management | 88
- Pet Science | 88
- Photography | 89
- Physical Education | 89
- Psychiatric Technician to RN | 89
- **S-T**
- Sign Language/Interpreting | 94
- Small Business Management | 94
- **U-V-W**
- Welding | 95

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**Mt. San Antonio College Catalog 2009-10**
Transferability of courses.

Consult with a counselor or advisor to discuss transferability of courses. The curriculum is flexible in nature to allow for previous experience and specialization in a given area of agriculture and agricultural business.

Requirements for the Major

Required courses:

- BUSO 26 Oral Communications 3.0
- BUSO 25 Business Communications 3.0 CSU
- BUSO 24 Business English 3.0
- COMP 2 Intermediate Computer Keyboarding 4.0
- COMP 12 Office Computer Applications 4.0 CSU, UC
- CISB 15 Microcomputer Applications 4.0 CSU, UC
- COMP 20 Word for the Business Professional A, 4.0
- COMP 28 Office Management Skills 3.0
- COMP 50 Desktop Presentations 4.0 CSU
- Using PowerPoint
- COMP 68 Transcription Techniques 3.0

PLUS

Select one (1) course from:

- AHS 5 History of Western Art 3.0 CSU, UC
- Renaissance Through Modern Honors
- AHS 5H History of Western Art - Renaissance Through Modern - Honors
- AHS 6 History of Modern Art 3.0 CSU
- AHS 6H History of Modern Art - Honors 3.0 CSU
- Total Units 30.0

Recommended Electives:

- AHS 4 History of Western Art: Prehistoric Through Gothic 3.0
- ANIM 172 Motion Graphics With After Effects 3.0
- ANIM 175 Web Animation With Flash 3.0
- ARTC 77 Computer Graphics: Illustration 3.0
- ARTC 78A Work Experience in Advertising 1.0
- ARTD 45 Printmaking: Silk-Screening 3.0
- ARTS 22 Design: Three-Dimensional 3.0
- PHOT 10 Basic Digital and Film Photography 3.0

Total Units 33.0 - 34.0

Programs Leading to an Associates Degree

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

Requirements for the Major

Required courses:

- AGPE 71 Canine Management 3.0
- AGPE 70 Pet Shop Management 3.0
- AGOR 24 Integrated Pest Management 3.0 CSU
- AGOR 62 Landscape Irrigation - Design and Installation 3.0
- AGOR 71 Canine Management 3.0
- Total Units 33.0 - 34.0
PROGRAMS LEADING TO AN ASSOCIATES DEGREE

Air Conditioning and Refrigeration

Air Conditioning, Water & Welding Technologies

Major S0909

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

Requirements for the Major

Required courses:

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

Air Conditioning and Refrigeration Technology-Evening

Aircraft Maintenance Tech & Manufacturing Dept.

Major S0911

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

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

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

Requirements for the Major

Required courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AIRM 74</td>
<td>Aircraft Maintenance Technology - Work Experience</td>
<td></td>
</tr>
<tr>
<td>AIRM 80</td>
<td>Lab Studies in Aircraft Maintenance Technology</td>
<td></td>
</tr>
<tr>
<td>AIRM 81</td>
<td>Lab Studies in Aircraft Maintenance Technology</td>
<td></td>
</tr>
<tr>
<td>EDT 12</td>
<td>Technical Engineering Drawing II</td>
<td></td>
</tr>
<tr>
<td>ELEC 90</td>
<td>Survey of Electronics</td>
<td></td>
</tr>
<tr>
<td>MFG 70</td>
<td>Technical Mathematics - Manufacturing Applications</td>
<td></td>
</tr>
<tr>
<td>PHYS 1</td>
<td>Physics</td>
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</tr>
<tr>
<td>AIRM 96</td>
<td>Aircraft Powerplant Maintenance Technology</td>
<td>3.0</td>
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<tr>
<td>AIRM 97</td>
<td>Aircraft Maintenance Technology</td>
<td>3.0</td>
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<tr>
<td>AIRM 98</td>
<td>Aircraft Powerplant Maintenance Technology</td>
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<td>AIRM 94</td>
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<td>AIRM 95</td>
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<td>AIRM 97A</td>
<td>Aircraft Maintenance Technology</td>
<td>3.0</td>
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<tr>
<td>AIRM 97B</td>
<td>Aircraft Maintenance Technology</td>
<td>3.0</td>
</tr>
<tr>
<td>AIRM 98A</td>
<td>Aircraft Powerplant Maintenance Technology</td>
<td>3.0</td>
</tr>
<tr>
<td>AIRM 98B</td>
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<td>3.0</td>
</tr>
<tr>
<td>Total Units</td>
<td></td>
<td>63.0</td>
</tr>
</tbody>
</table>

Airframe and Aircraft Powerplant Maintenance Technology-Day

Aircraft Maintenance Tech & Manufacturing Dept.

Major S0911

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

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

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

Requirements for the Major

Required courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AIRM 74</td>
<td>Aircraft Maintenance Technology - Work Experience</td>
<td></td>
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<tr>
<td>AIRM 80</td>
<td>Lab Studies in Aircraft Maintenance Technology</td>
<td></td>
</tr>
<tr>
<td>AIRM 81</td>
<td>Lab Studies in Aircraft Maintenance Technology</td>
<td></td>
</tr>
<tr>
<td>EDT 12</td>
<td>Technical Engineering Drawing II</td>
<td></td>
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<tr>
<td>ELEC 90</td>
<td>Survey of Electronics</td>
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<tr>
<td>AIRM 96</td>
<td>Aircraft Powerplant Maintenance Technology</td>
<td>3.0</td>
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<td>AIRM 97</td>
<td>Aircraft Maintenance Technology</td>
<td>3.0</td>
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<tr>
<td>AIRM 98</td>
<td>Aircraft Powerplant Maintenance Technology</td>
<td>3.0</td>
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<td>AIRM 94</td>
<td>Aircraft Powerplant Maintenance Technology</td>
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<td>AIRM 95</td>
<td>Aircraft Powerplant Maintenance Technology</td>
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<td>AIRM 96B</td>
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<td>AIRM 97A</td>
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<td>AIRM 98A</td>
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<tr>
<td>AIRM 98B</td>
<td>Aircraft Powerplant Maintenance Technology</td>
<td>3.0</td>
</tr>
<tr>
<td>Total Units</td>
<td></td>
<td>67.0</td>
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</tbody>
</table>
### Alcohol/Drug Counseling
**Public Services Department**

**Major S2101**

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

#### Requirements for the Major

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

**Required skilled courses:**
- AD 7 Group Process and Leadership 3.0
- AD 8 Family Counseling 3.0
- AD 9 Client Record and Documentation 1.5
- AD 10 Techniques of Intervention and Referral 3.0

**Required field work courses:**
- AD 11 Internship/Seminar 3.5 CSU
- AD 12 Advanced Internship/Seminar 3.5 CSU

**PLUS**

**Select six (6) units from:**
- CHLD 10 Child Growth and Development 3.0 CSU,UC
- CHLD 10H Child Growth and Development - Honors 3.0 CSU,UC
- PSYC 1A Introduction to Psychology 3.0 CSU,UC
- PSYC 1AH Introduction to Psychology - Honors 3.0 CSU,UC
- PSYC 19 Abnormal Psychology 3.0 CSU,UC
- SOC 1 Sociology 3.0 CSU,UC
- SOC 1H Sociology - Honors 3.0 CSU,UC
- SOC 14 Marriage and the Family 3.0 CSU,UC
- SOC 15 Child Development 3.0 CSU,UC

**Total Units** 40.0

### Eligibility Requirements and Selection Procedures

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

**Special Instructions:**
- a) Restricted Electives must be taken prior to enrollment in Field Experience
- b) Restricted Electives can be taken in conjunction with core and skills courses
- c) Refer to Schedule of Credit Classes for sequence of courses
- d) For questions, call the division office at (909) 594-4750
- e) For questions, call the division office at (909) 594-5611, ext. 4750

**Working environment:**
- May be exposed to infectious and contagious disease, without prior notification
- May be exposed to the risk of blood borne diseases
- Exposed to hazardous agents, body fluids and wastes
- Exposed to 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
- Exposure to a highly charged emotional environment which can be stressful intense

### English Language Skills:

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

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### Animation Commercial and Entertainment Arts

**Major S1006**

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

#### Requirements for the Major

**Required courses:**
- ANIM 101 Drawing - Gesture and Figure 3.0 CSU
- ANIM 104 Drawing Fundamentals 3.0 CSU
- ARTD 15A Drawing: Beginning 3.0 CSU,UC
- ANIM 108 Principles of Animation 3.0 CSU
- ANIM 115 Storyboarding 3.0
- ANIM 116 Character Development 1.5
- ANIM 119 Portfolio 1.5
- ANIM 130 Introduction to 3-D Computer Animation 3.0
- ARTD 70 Computer Graphics: Introduction 3.0 CSU,UC
- ARTD 17A Drawing: Life 3.0 CSU,UC
- ARTD 20 Design: Two Dimensional 3.0 CSU,UC
- ARTS 22 Design: Three Dimensional 3.0 CSU,UC

**PLUS**

**Select one (2) courses from:**
- ANIM 117 Animation Background Layout 3.0 CSU
- ANIM 120 Script Development for Animation 3.0
- ANIM 132 Modeling, Texture Mapping and Lighting 3.0
- ANIM 175 Web Animation With Flash 3.0
- ARTD 16 Drawing: Perspective 3.0 CSU,UC

**Total Units** 36.0

### Recommended Electives:
- AHS 4 History of Western Art: Prehistoric Through Gothic 3.0
- AHS 5 History of Western Art: Renaissance Through Modern 3.0
- ANIM 107 Figure in Motion 3.0
- ANIM 109 Advanced Principles of Animation 3.0
- ANIM 111 Animal Drawing 3.0

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### Architectural Technology - Design Concentration

**Architecture and Engineering Design Department**

**Major S0202**

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

#### Requirements for the Major

**Required courses:**
- ARCH 10 Design I - Elements of Design 3.0 CSU
- ARCH 11 Architectural Drawing 3.0 CSU,UC
- ARCH 12 Architectural Materials and Specifications 3.0 CSU
- ARCH 13 Architectural Illustration 3.0 CSU,UC
- ARCH 16 Basic CAD and Computer Application 4.0 CSU,UC
- ARCH 21 Design II - Architectural Design 3.0 CSU
- ARCH 23 Architectural Presentations 3.0 CSU
- ARCH 27 Design III - Environmental Design 3.0 CSU,UC
- ARCH 29 Design IV - Advanced Project for Animation 3.0 CSU
- ARCH 31 World Architecture I 3.0 CSU
- ARCH 32 World Architecture II 3.0 CSU,UC

**PLUS**

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

**PLUS**

**Select one (1) course from:**
- ARCH 14 Building and Zoning Codes 3.0 CSU
- ARCH 15 Architectural Working Drawings - II 3.0 CSU
Programs Leading to an Associates Degree

Architectural Computer Aided Design and Elements
ARCH 18  3.0
ARCH 26  3.0
ARCH 28  3.0 CSU
ARCH 89  1.0
ARCH 90  2.0
INS 70  3.0 CSU
Total Units  38.0 - 40.0

Recommended Electives:
ARTD 15A  Drawing: Beginning
ARTD 20  Design: Two-Dimensional
ARTS 22  Design: Three-Dimensional
ENGL 1C  Critical Thinking and Writing
MATH 150  Trigonometry
PHYS 2AG  General Physics
ENGL 1C, MATH 150, and PHYS 2AG are typically required for transfer to a professional school of architecture. Verify all requirements with the transfer institution.

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

Requirements for the Major
Required courses:
ARCH 18  Architectural Computer Aided Design and Elements
ARCH 26  Architectural CAD Working Drawings
ARCH 28  Architectural CAD 3-D Illustration and Animation
ARCH 29  Design IV - Advanced Project
EDIT 20  Technical Descriptive Geometry
EDIT 70  Elements of Construction 3.0 CSU
Total Units  31.0

Recommended Electives:
ENGL 1C  Critical Thinking and Writing
MATH 150  Trigonometry
PHYS 2AG  General Physics
ENGL 1C, MATH 150, and PHYS 2AG are typically required for transfer to a professional school of architecture. Verify all requirements with the transfer institution.

Aviation Science
Aeronautics, Transportation and Travel Department
Major S0910
This curriculum meets the requirements of the Federal Aviation Administration Collegiate Training Initiative (CTI). Under an educational partnership agreement with the FAA, this CTI program prepares students for broad-based aviation careers. Students completing this CTI program may be recommended by the college for hiring by the FAA as air traffic controllers.

Requirements for the Major
Required courses:
AERO 23  Primary Pilot Ground School
AERO 24  Navigation
AERO 26  Aviation Weather
AERO 27  Aviation Safety
AERO 29  Federal Aviation Regulations
AERO 30  Instrument Ground School
AIRT 41  Aircraft Recognition and Performance
AIRT 42  Air Traffic Control Environment
AIRT 43  Air Traffic Control Team Skills
CISB 11  Computer Information Systems
TRAN 17  Air Transportation
Total Units  31.0

Recommended Electives:
AERO 25  Commercial Pilot Ground School
AERO 28  Aircraft and Engines
AERO 40  Flight
AERO 40L  Flight Laboratory
BUSM 60  Human Relations in Business
BUSM 61  Business Organization and Management
BUSA 72  Bookkeeping - Accounting
BUSS 36  Principles of Marketing
CISB 15  Microcomputer Applications
FASH 62  Retail Store Management
FASH 65  Business and Merchandising

Business: Management
Accounting and Management Department
Major S0509
This program is intended to prepare students for employment following graduation. Students wishing a Bachelor’s Degree (transfer program) should consult with a counselor or advisor to discuss transferability of courses.

Requirements for the Major
Required courses:
BUSM 60  Human Relations in Business
BUSM 61  Business Organization and Management
BUSA 7  Principles of Accounting - Financial
BUSS 10  Principles of Continuous Quality Improvement
BUSA 72  Bookkeeping - Accounting
BUSA 11  Fundamentals of Accounting
BUSM 60  Human Relations in Business
BUSM 61  Business Organization and Management
BUSS 25  Business Communications
BUSS 26  Oral Communications
BUSS 36  Principles of Marketing
CISB 15  Microcomputer Applications
FASH 62  Retail Store Management
FASH 65  Business and Merchandising

Total Units  33.0

Chemical Laboratory Technician
Biological Sciences Department
Major S0950
This program provides theoretical and technical training to prepare students for employment as entry-level chemical technicians in fields such as chemical quality control, chemical process control, analytical chemistry, water quality, and research and development. The program includes a broad-based overview of workforce options and emphasizes development of analytical skills, instrument proficiency, critical thinking, and trouble-shooting of experimental designs and outcomes.

Requirements for the Major
Required courses:
BUSM 10  Principles of Continuous Quality Improvement
BUSA 7  Principles of Accounting
BUSS 10  Principles of Continuous Quality Improvement
CISB 15  Microcomputer Applications
BUSM 60  Human Relations in Business
BUSS 25  Business Communications
BUSS 26  Oral Communications
BUSS 36  Principles of Marketing
FASH 62  Retail Store Management
FASH 65  Business and Merchandising

Total Units  33.0

Chemical Laboratory Technician
Biological Sciences Department
Major S0950
This program provides theoretical and technical training to prepare students for employment as entry-level chemical technicians in fields such as chemical quality control, chemical process control, analytical chemistry, water quality, and research and development. The program includes a broad-based overview of workforce options and emphasizes development of analytical skills, instrument proficiency, critical thinking, and trouble-shooting of experimental designs and outcomes.

Requirements for the Major
Required courses:
BUSM 10  Principles of Continuous Quality Improvement
BUSA 7  Principles of Accounting
BUSS 10  Principles of Continuous Quality Improvement
CISB 15  Microcomputer Applications
BUSM 60  Human Relations in Business
BUSS 25  Business Communications
BUSS 26  Oral Communications
BUSS 36  Principles of Marketing
FASH 62  Retail Store Management
FASH 65  Business and Merchandising

Total Units  33.0

Chemical Laboratory Technician
Biological Sciences Department
Major S0950
This program provides theoretical and technical training to prepare students for employment as entry-level chemical technicians in fields such as chemical quality control, chemical process control, analytical chemistry, water quality, and research and development. The program includes a broad-based overview of workforce options and emphasizes development of analytical skills, instrument proficiency, critical thinking, and trouble-shooting of experimental designs and outcomes.

Requirements for the Major
Required courses:
BUSM 10  Principles of Continuous Quality Improvement
BUSA 7  Principles of Accounting
BUSS 10  Principles of Continuous Quality Improvement
CISB 15  Microcomputer Applications
BUSM 60  Human Relations in Business
BUSS 25  Business Communications
BUSS 26  Oral Communications
BUSS 36  Principles of Marketing
FASH 62  Retail Store Management
FASH 65  Business and Merchandising

Total Units  33.0
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>CSU,UC</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHM 20</td>
<td>Introductory Organic and Biochemistry</td>
<td>5.0</td>
<td>CSU,UC</td>
</tr>
<tr>
<td>CHM 50</td>
<td>General Chemistry I</td>
<td>5.0</td>
<td>CSU,UC</td>
</tr>
<tr>
<td>CHM 51</td>
<td>General Chemistry II</td>
<td>5.0</td>
<td>CSU,UC</td>
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<tr>
<td>CHM 60</td>
<td>Quantitative Chemical Analysis</td>
<td>5.0</td>
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<tr>
<td>CHM 75</td>
<td>Instrumental Analysis</td>
<td>5.0</td>
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<tr>
<td>CHMT 1</td>
<td>Introduction to Chemical Laboratory Technology</td>
<td>3.0</td>
<td></td>
</tr>
<tr>
<td>CHMT 8</td>
<td>Work Experience in Chemical Technology</td>
<td>1.0</td>
<td></td>
</tr>
<tr>
<td>CHMT 9</td>
<td>Work Experience in Chemical Technology</td>
<td>2.0</td>
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<tr>
<td>PLUS</td>
<td>Select six (6) units from:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CHMT 5</td>
<td>Elementary Principles of Chemical Processing</td>
<td>2.0</td>
<td>CSU</td>
</tr>
<tr>
<td>MICR 22</td>
<td>Microbiology</td>
<td>4.0</td>
<td>CSU,UC</td>
</tr>
<tr>
<td>PHIL 12H</td>
<td>Ethics - Honors</td>
<td>3.0</td>
<td>CSU,UC</td>
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<tr>
<td>SPCH 26</td>
<td>Interpersonal Communication</td>
<td>3.0</td>
<td>CSU,UC</td>
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<tr>
<td>SPCH 26H</td>
<td>Interpersonal Communication - Honors</td>
<td>3.0</td>
<td>CSU,UC</td>
</tr>
</tbody>
</table>

**Child Development**

**Child Development Major S1315**

This program introduces students to the study of young children and their education and prepares students for employment following graduation in the field of Child Development. An Associate of Science Degree and eleven certificates are offered. Students desiring a Bachelor's Degree (transfer program) should consult with a counselor or advisor to discuss transferability of courses.

**Requirements for the Major**

**Required courses:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>CSU,UC</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHLD 66</td>
<td>Early Childhood Development Observation</td>
<td>2.0</td>
<td>CSU</td>
</tr>
<tr>
<td>CHLD 66L</td>
<td>Early Childhood Development Observation Laboratory</td>
<td>1.0</td>
<td>CSU</td>
</tr>
<tr>
<td>CHLD 67</td>
<td>Early Childhood Development Participation</td>
<td>2.0</td>
<td>CSU</td>
</tr>
<tr>
<td>CHLD 67L</td>
<td>Early Childhood Development Participation Laboratory</td>
<td>1.0</td>
<td>CSU</td>
</tr>
<tr>
<td>CHLD 68</td>
<td>Children With Special Needs</td>
<td>3.0</td>
<td>CSU</td>
</tr>
<tr>
<td>CHLD 69</td>
<td>Early Childhood Development Field/Work Seminar</td>
<td>2.0</td>
<td>CSU</td>
</tr>
<tr>
<td>CHLD 84</td>
<td>Guidance and Discipline in Child Development Settings</td>
<td>1.0</td>
<td>CSU</td>
</tr>
<tr>
<td>CHLD 91</td>
<td>Early Childhood Development Field/Work</td>
<td>1.0</td>
<td>CSU</td>
</tr>
</tbody>
</table>

**Total Units** 28.0

**Recommended Electives:**

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

**Commercial Flight**

**Aeronautics, Transportation and Travel Department Major S0912**

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

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

**Requirements for the Major**

**Required courses:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>CSU,UC</th>
</tr>
</thead>
<tbody>
<tr>
<td>AERO 23</td>
<td>Primary Pilot Ground School</td>
<td>4.0</td>
<td>CSU</td>
</tr>
<tr>
<td>AERO 24</td>
<td>Navigation</td>
<td>3.0</td>
<td>CSU</td>
</tr>
<tr>
<td>AERO 25</td>
<td>Commercial Pilot Ground School</td>
<td>3.0</td>
<td>CSU</td>
</tr>
<tr>
<td>AERO 26</td>
<td>Aviation Weather</td>
<td>3.0</td>
<td>CSU</td>
</tr>
<tr>
<td>AERO 27</td>
<td>Aviation Safety</td>
<td>3.0</td>
<td>CSU</td>
</tr>
<tr>
<td>AERO 28</td>
<td>Aircraft and Engines</td>
<td>3.0</td>
<td>CSU</td>
</tr>
<tr>
<td>AERO 29</td>
<td>Federal Aviation Regulations</td>
<td>2.0</td>
<td>CSU</td>
</tr>
<tr>
<td>AERO 30</td>
<td>Instrument Ground School</td>
<td>3.0</td>
<td>CSU</td>
</tr>
<tr>
<td>TRAN 17</td>
<td>Air Transportation</td>
<td>3.0</td>
<td>CSU</td>
</tr>
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</table>

**Total Units** 27.0

**Recommended Electives:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>CSU,UC</th>
</tr>
</thead>
<tbody>
<tr>
<td>AERO 40</td>
<td>Flight</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AERO 40L</td>
<td>Flight Laboratory</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AERO 41</td>
<td>Basic Flight Simulator Laboratory</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AIRT 41</td>
<td>Flight Instructor Ground School</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CISB 11</td>
<td>Computer Information Systems</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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**

**Computer Information Systems Department Major S0706**

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

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

**Requirements for the Major**

**Required courses:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>CSU,UC</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUSM 20</td>
<td>Principles of Business</td>
<td>3.0</td>
<td></td>
</tr>
<tr>
<td>BUSM 25</td>
<td>Principles of E-Commerce</td>
<td>3.0</td>
<td></td>
</tr>
<tr>
<td>BUSA 7</td>
<td>Principles of Accounting - Financial</td>
<td>5.0</td>
<td></td>
</tr>
</tbody>
</table>

**PLUS**

Select one of the following two concentrations:

**Microsoft Concentration:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>CSU,UC</th>
</tr>
</thead>
<tbody>
<tr>
<td>CISD 11</td>
<td>Database Management - Microsoft Access</td>
<td>4.0</td>
<td></td>
</tr>
<tr>
<td>CISD 14</td>
<td>Advanced Database Management - Microsoft Access</td>
<td>4.0</td>
<td></td>
</tr>
<tr>
<td>CISD 21</td>
<td>Database Management - Microsoft SQL Server</td>
<td>4.0</td>
<td></td>
</tr>
<tr>
<td>CISD 40</td>
<td>Database Design</td>
<td>3.0</td>
<td></td>
</tr>
</tbody>
</table>

**Oracle Concentration:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>CSU,UC</th>
</tr>
</thead>
<tbody>
<tr>
<td>CISD 31</td>
<td>Database Management - Oracle</td>
<td>4.0</td>
<td></td>
</tr>
<tr>
<td>CISD 32</td>
<td>Oracle Forms and reports</td>
<td>4.0</td>
<td></td>
</tr>
<tr>
<td>CISD 40</td>
<td>Database Design</td>
<td>3.0</td>
<td></td>
</tr>
</tbody>
</table>

**Total Units** 29.0 – 35.0

**Computer Graphics Design/Photography**

**Commercial and Entertainment Arts**

**Major S1005**

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

**Requirements for the Major**

**Required courses:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>CSU,UC</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUSM 20</td>
<td>Principles of Business</td>
<td>3.0</td>
<td></td>
</tr>
<tr>
<td>BUSM 25</td>
<td>Principles of E-Commerce</td>
<td>3.0</td>
<td></td>
</tr>
<tr>
<td>BUSA 7</td>
<td>Principles of Accounting - Financial</td>
<td>5.0</td>
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</tbody>
</table>

**PLUS**

Select one of the following courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>CSU,UC</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUSM 20</td>
<td>Principles of Business</td>
<td>3.0</td>
<td></td>
</tr>
<tr>
<td>BUSM 25</td>
<td>Principles of E-Commerce</td>
<td>3.0</td>
<td></td>
</tr>
<tr>
<td>BUSA 7</td>
<td>Principles of Accounting - Financial</td>
<td>5.0</td>
<td></td>
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</tbody>
</table>

**Total Units** 29.0 – 35.0

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**Programs Leading to an Associates Degree**

---

**Computer Graphics Design/Photography**

**Commercial and Entertainment Arts**

**Major S1005**

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

**Requirements for the Major**

**Required courses:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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</tr>
</thead>
<tbody>
<tr>
<td>BUSM 20</td>
<td>Principles of Business</td>
<td>3.0</td>
<td></td>
</tr>
<tr>
<td>BUSM 25</td>
<td>Principles of E-Commerce</td>
<td>3.0</td>
<td></td>
</tr>
<tr>
<td>BUSA 7</td>
<td>Principles of Accounting - Financial</td>
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</table>

**PLUS**

Select one of the following courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>CSU,UC</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUSM 20</td>
<td>Principles of Business</td>
<td>3.0</td>
<td></td>
</tr>
<tr>
<td>BUSM 25</td>
<td>Principles of E-Commerce</td>
<td>3.0</td>
<td></td>
</tr>
<tr>
<td>BUSA 7</td>
<td>Principles of Accounting - Financial</td>
<td>5.0</td>
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</tr>
</tbody>
</table>

**Total Units** 29.0 – 35.0
Programs Leading to an Associates Degree

Computer and Networking Technology
Electronics and Computer Technology Department
Major S0725
The Computer and Networking Technology major prepares students to enter the computer and networking fields as service technicians. The program provides foundations in basic electronics, computer servicing, operating systems, network/server servicing, security systems and customer relations. The student will be prepared to perform installation, software configuration and the maintenance, operation, troubleshooting and repair of computers and their associated networking hardware/software. In addition, the program prepares students to take the A+, Network+, Server+ and Security+ certification tests offered at testing centers throughout the country. These certifications are CompTIA sponsored and are worldwide-recognized industry standards. Multi-level certificates are also available.

Requirements for the Major

**Required courses:**
- GRAP 14 Digital Color Management 3.0
- GRAP 16 Digital Image Design 3.0
- GRAP 18 Advanced Image Design 3.0
- GRAP 20 Applying Photos and Images in Multimedia 3.0
- PHOT 15 History of Photography 3.0
- Total Units 27.0

**Recommended Electives:**
- AHS 1 Understanding the Visual Arts
- ARTB 1 Understanding the Visual Arts
- COMP 10 Operating the Macintosh Computer
- GRAP 24 Work Experience in Computer Graphics
- PHOT 1 Laboratory Studies: Color Photography
- PHOT 4 Digital Cameras and Composition
- PHOT 15 History of Photography

Computer Programming

Computer Information Systems Department
Major S0709
The Computer Programming major is a two-year program leading to the Associate in Science (A.S.) Degree. It is designed to prepare students for employment as a computer programmer following graduation. Students wishing a Bachelor's Degree (transfer program) should consult with a counselor or advisor to discuss transferability of courses.

Course work includes a list of core courses and additional courses for each concentration. The Computer Programming degree emphasizes the development of applications in a business environment using object-oriented methodologies. Students must choose one of three programming language concentrations: C++, Visual Basic, Java or C#.

**Requirements for the Major**

**Required courses:**
- CISP 10 Object-Oriented Design 2.0
- CISP 20 Principles of Business 3.0
- CISP 25 Principles of E-Commerce 3.0
- BUSA 7 Principles of Accounting - Financial 5.0
- CSD 11 Database Management - Microsoft Access 4.0
- CSD 21 Database Management - Microsoft SQL Server 4.0
- CSD 31 Database Management - Oracle 4.0

**PLUS**

One of the following concentrations:

- C++:
  - CISP 11 Programming in C++ 4.0
  - CISP 31 Programming in C++ 4.0

- Visual Basic:
  - CISP 11 Programming in Visual Basic 4.0
  - CISP 14 Advanced Visual Basic Programming 4.0

- Java:
  - CISP 21 Programming in Java 4.0
  - CISP 24 Advanced Java Programming 4.0

- C#:
  - CISP 41 Programming in C# 4.0
  - CISP 44 Advanced Programming in C# 4.0

**Total Units** 32.0 - 34.0

Construction Inspection
Architecture and Engineering Design Department
Major S0920
This program is intended to prepare students for employment following graduation. Students desiring a Bachelor's Degree (transfer program) should consult with a counselor or advisor to discuss transferability of courses.

**Requirements for the Major**

**Required courses:**
- ARCH 12 Architectural Materials and Specifications 3.0 CSU
- ARCH 14 Building and Zoning Codes 3.0
- INS 17 Legal Aspects of Construction 3.0 CSU
- INS 70 Elements of Construction 3.0 CSU
- INS 71 Construction Estimating 3.0 CSU
Electronics and Computer Engineering Technology

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

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

These certificate programs are also available: an 8-10 unit certificate in Electronics Assembly and Fabrication, a one-year certificate in Electronics Technology, and a two-year certificate with the same title as the A.S. Degree. All students completing an Electronic A.S. Degree program are automatically eligible to receive, without further examination, the N.A.R.T.E. 4th Class Technician License. Nearly all labs have new, state-of-the-art equipment to provide the student with quality hands-on learning experiences.

Emergency Medical Services

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

Programs Leading to an Associates Degree

Electronics and Computer Engineering Technology

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELEC 56</td>
<td>Digital Electronics</td>
<td>4.0 (CSU)</td>
</tr>
<tr>
<td>ELEC 61</td>
<td>Electronic Assembly and Fabrication</td>
<td>2.0 (CSU)</td>
</tr>
<tr>
<td>ELEC 74</td>
<td>Microprocessor Systems</td>
<td>4.0 (CSU)</td>
</tr>
<tr>
<td>TECH 60</td>
<td>Customer Relations</td>
<td>1.0 for the Technician</td>
</tr>
</tbody>
</table>

Total Units: 43.0

Recommended Electives:

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

Participate in an Associate Degree Program Leading to an Emergency Medical Services Career

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

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

Requirements for the Major

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>EMS 1</td>
<td>Fundamentals for Paramedics</td>
<td>4.0</td>
</tr>
<tr>
<td>EMS 10</td>
<td>Anatomy and Physiology for Paramedics</td>
<td>2.0</td>
</tr>
<tr>
<td>EMS 20</td>
<td>Emergency Cardiac Care for Paramedics</td>
<td>1.0</td>
</tr>
<tr>
<td>EMS 30</td>
<td>Pharmacology for Paramedics</td>
<td>2.0</td>
</tr>
<tr>
<td>EMS 40</td>
<td>Cardiology for Paramedics</td>
<td>5.0</td>
</tr>
<tr>
<td>EMS 50</td>
<td>Paramedic Skills Competency</td>
<td>4.5</td>
</tr>
<tr>
<td>EMS 60</td>
<td>EMS Theory for Paramedics</td>
<td>8.5</td>
</tr>
<tr>
<td>EMS 70</td>
<td>Paramedic Clinical Internship</td>
<td>3.5</td>
</tr>
<tr>
<td>EMS 80</td>
<td>Paramedic Field Internship</td>
<td>8.5</td>
</tr>
</tbody>
</table>

Total Units: 39.0

Section 8
Programs Leading to an Associates Degree

Recommended Electives:

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

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

Special Information

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

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

Application Requirements and Entrance Procedures

Application Requirements:

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

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

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

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

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

Entrance Procedure:

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

1) Completion of all admission requirements
2) EMS-related experience
3) Scores on the English assessment and math placement tests
4) Placement EMS-1, Fundamentals for Paramedics, and scores on college placement exam for English and math. All Applicants are required to meet the Essential Functions for Success in the Paramedic Program.

Physical Demands:

- Perform prolonged, extensive, or considerable standing/walking, lifting positioning, pushing, and/or transferring patients.
- Possess the ability to perform fine motor movements with hands and fingers.

Sensory Demands:

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

Working Environment:

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

English Language Skills:

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

Recommended Electives:

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

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

Special Information

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

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

Application Requirements and Entrance Procedures

Application Requirements:

- Be an EMT-I, currently certified in California.
- Submit a letter on official stationary from a recognized EMS agency verifying completion of six (6) months of pre-hospital field experience as an EMT-I (approximately 1,200 hours) within the last two years.
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Entrance Procedure:

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

1) Completion of all admission requirements
2) EMS-related experience
3) Scores on the English assessment and math placement tests
4) Placement EMS-1, Fundamentals for Paramedics, and scores on college placement exam for English and math. All Applicants are required to meet the Essential Functions for Success in the Paramedic Program.

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- Possess the ability to perform fine motor movements with hands and fingers.

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

Working Environment:

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

English Language Skills:

Although proficiency in English is not a criteria for admission into the nursing program, students are encouraged to be able to speak, write and read English to complete classes successfully and to ensure safety for themselves and for others.
## Equipment Technology
### Agricultural Sciences Department
#### Major S0118

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

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

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

### Requirements for the Major

#### Required courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AGAG 51</td>
<td>Food Production, Land Use</td>
<td>3.0</td>
</tr>
<tr>
<td>AGAG 59</td>
<td>Work Experience in Agriculture</td>
<td>1.0</td>
</tr>
<tr>
<td>AGOR 51</td>
<td>Tractor and Landscape</td>
<td>3.0</td>
</tr>
<tr>
<td>AGOR 52</td>
<td>Hydraulics</td>
<td>3.0</td>
</tr>
<tr>
<td>AGOR 53</td>
<td>Small Engine Repair I</td>
<td>3.0</td>
</tr>
<tr>
<td>AGOR 54</td>
<td>Small Engine Repair II</td>
<td>3.0</td>
</tr>
<tr>
<td>AGOR 55</td>
<td>Diesel Engine Repair</td>
<td>3.0</td>
</tr>
<tr>
<td>AGOR 56</td>
<td>Engine Diagnostics</td>
<td>3.0</td>
</tr>
<tr>
<td>AGOR 57</td>
<td>Power Train Repair</td>
<td>3.0</td>
</tr>
<tr>
<td>AGOR 71</td>
<td>Landscape Construction Fundamentals</td>
<td>3.0</td>
</tr>
<tr>
<td>AGOR 72</td>
<td>Landscape Hardscape Applications</td>
<td>3.0</td>
</tr>
<tr>
<td>CSB 15</td>
<td>Microcomputer Applications</td>
<td>4.0</td>
</tr>
</tbody>
</table>

### Total Units 35.0 - 38.0

## Escrow Management
### Business Administration Department
#### Major S0511

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

### Requirements for the Major

#### Required courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUSA 7</td>
<td>Principles of Accounting - Financial</td>
<td>5.0</td>
</tr>
<tr>
<td>BUSA 72</td>
<td>Bookkeeping - Accounting</td>
<td>5.0</td>
</tr>
<tr>
<td>BUSM 20</td>
<td>Principles of Business</td>
<td>3.0</td>
</tr>
<tr>
<td>BUSM 60</td>
<td>Human Relations in Business</td>
<td>3.0</td>
</tr>
<tr>
<td>BUSM 66</td>
<td>Small Business Management</td>
<td>3.0</td>
</tr>
<tr>
<td>BUSO 25</td>
<td>Business Communications</td>
<td>3.0</td>
</tr>
<tr>
<td>BUSR 50</td>
<td>Real Estate Principles</td>
<td>3.0</td>
</tr>
<tr>
<td>BUSR 51</td>
<td>Legal Aspects of Real Estate</td>
<td>3.0</td>
</tr>
<tr>
<td>BUSR 53</td>
<td>Real Estate Finance</td>
<td>3.0</td>
</tr>
<tr>
<td>BUSR 76</td>
<td>Escrow Procedures I</td>
<td>3.0</td>
</tr>
<tr>
<td>BUSR 77</td>
<td>Escrow Procedures II</td>
<td>3.0</td>
</tr>
<tr>
<td>CSB 15</td>
<td>Microcomputer Applications</td>
<td>4.0</td>
</tr>
<tr>
<td>CIMP 1</td>
<td>Computer Keyboarding</td>
<td>4.0</td>
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</table>

### Total Units 40.0

#### Recommended Electives:

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<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUSA 8</td>
<td>Principles of Accounting - Managerial</td>
<td></td>
</tr>
<tr>
<td>BUSL 18</td>
<td>Business Law</td>
<td></td>
</tr>
<tr>
<td>BUSL 18H</td>
<td>Business Law - Honors</td>
<td></td>
</tr>
<tr>
<td>BUSM 62</td>
<td>Human Resource Management</td>
<td></td>
</tr>
<tr>
<td>BUSO 5</td>
<td>Business English</td>
<td></td>
</tr>
<tr>
<td>BUSR 52</td>
<td>Real Estate Practice</td>
<td></td>
</tr>
<tr>
<td>BUSR 52D</td>
<td>Real Estate Practice Work Experience</td>
<td></td>
</tr>
<tr>
<td>BUSR 57</td>
<td>Income Tax Aspects of Real Estate Investments</td>
<td></td>
</tr>
<tr>
<td>PSYC 1A</td>
<td>Introduction to Psychology</td>
<td></td>
</tr>
<tr>
<td>PSYC 1AH</td>
<td>Introduction to Psychology - Honors</td>
<td></td>
</tr>
</tbody>
</table>

### Total Units 30.0

## Family and Consumer Sciences
### Consumer Science and Design Technologies
#### Major S1309

This program provides students with the basic skills associated with the field of family and consumer sciences, which includes the needs of the home, the family, and its individual members. Students wishing a Bachelor’s Degree (transfer program) should consult with a counselor or advisor to discuss transferability of courses.

### Requirements for the Major

#### Required courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHLD 10</td>
<td>Child Growth and Development</td>
<td>3.0</td>
</tr>
<tr>
<td>CHLD 10H</td>
<td>Child Growth and Development - Honors</td>
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</tr>
<tr>
<td>FASH 10</td>
<td>Clothing Fundamentals</td>
<td>3.0</td>
</tr>
<tr>
<td>FASH 15</td>
<td>Fashion Strategies</td>
<td>3.0</td>
</tr>
<tr>
<td>FASH 17</td>
<td>Textiles</td>
<td>3.0</td>
</tr>
<tr>
<td>FCS 41</td>
<td>Life Management</td>
<td>3.0</td>
</tr>
<tr>
<td>FCS 80</td>
<td>Financial Planning</td>
<td>3.0</td>
</tr>
<tr>
<td>BUSA 71</td>
<td>Financial Planning</td>
<td>3.0</td>
</tr>
<tr>
<td>ID 100</td>
<td>Fundamentals of Interior Design</td>
<td>3.0</td>
</tr>
<tr>
<td>NF 10</td>
<td>Principles of Foods With Lab</td>
<td>3.0</td>
</tr>
<tr>
<td>NF 62</td>
<td>Meal Management</td>
<td>3.0</td>
</tr>
<tr>
<td>NF 25</td>
<td>Essentials of Nutrition</td>
<td>3.0</td>
</tr>
<tr>
<td>NF 25H</td>
<td>Essentials of Nutrition - Honors</td>
<td>3.0</td>
</tr>
<tr>
<td>NF 28</td>
<td>Cultural and Ethnic Foods</td>
<td>3.0</td>
</tr>
</tbody>
</table>

### Total Units 30.0

#### Recommended Electives:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHLD 1</td>
<td>Child, Family and Community</td>
<td></td>
</tr>
<tr>
<td>FASH 12</td>
<td>Advanced Clothing</td>
<td></td>
</tr>
<tr>
<td>ID 105</td>
<td>Interior Design Studio I</td>
<td></td>
</tr>
<tr>
<td>ID 130</td>
<td>Applied Color and Design Theory</td>
<td></td>
</tr>
</tbody>
</table>

### Total Units 39.0

## Fashion Design
### Consumer Science and Design Technologies
#### Major S1320

Exciting employment opportunities are available in both fashion design and costume design. In Southern California, the apparel industry and the entertainment industry support the largest number of employees and contribute significantly to the economy of the region. Expand your creative talents with this challenging major and find a career of your dreams. Students desiring a Bachelor’s Degree should consult with a counselor or advisor and the transfer institution.

### Requirements for the Major

#### Required courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>FASH 8</td>
<td>Introduction to Fashion</td>
<td>3.0</td>
</tr>
<tr>
<td>FASH 9</td>
<td>History of Costume and Fashion</td>
<td>3.0</td>
</tr>
<tr>
<td>FASH 10</td>
<td>Clothing Construction I</td>
<td>3.0</td>
</tr>
<tr>
<td>FASH 12</td>
<td>Clothing Construction II</td>
<td>3.0</td>
</tr>
<tr>
<td>FASH 15</td>
<td>Fashion Strategies</td>
<td>3.0</td>
</tr>
<tr>
<td>FASH 17</td>
<td>Textiles</td>
<td>3.0</td>
</tr>
<tr>
<td>FASH 20</td>
<td>Illustration for Fashion and Costume Design</td>
<td>3.0</td>
</tr>
<tr>
<td>FASH 21</td>
<td>Patternmaking I</td>
<td>3.0</td>
</tr>
<tr>
<td>FASH 22</td>
<td>Fashion Design By Draping</td>
<td>3.0</td>
</tr>
<tr>
<td>FASH 23</td>
<td>Patternmaking II</td>
<td>3.0</td>
</tr>
<tr>
<td>FASH 30</td>
<td>Fashion Design and Product Development I</td>
<td>3.0</td>
</tr>
<tr>
<td>FASH 31</td>
<td>Fashion Design and Product Development II</td>
<td>3.0</td>
</tr>
<tr>
<td>FASH 32</td>
<td>Fashion Design and Product Development III</td>
<td>3.0</td>
</tr>
</tbody>
</table>

### Total Units 39.0

#### Recommended Electives:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>FASH 26</td>
<td>Fashion Computer Assisted Design</td>
<td></td>
</tr>
<tr>
<td>FASH 81</td>
<td>Work Experience in Fashion</td>
<td></td>
</tr>
<tr>
<td>FASH 90</td>
<td>Field Studies</td>
<td></td>
</tr>
<tr>
<td>FASH 91</td>
<td>Field Studies - New York</td>
<td></td>
</tr>
<tr>
<td>FASH 92</td>
<td>Field Studies - Fashion Caps</td>
<td></td>
</tr>
<tr>
<td>FCS 41</td>
<td>Life Management</td>
<td></td>
</tr>
<tr>
<td>FASH 90, FASH 91, and FASH 92 may be taken two times for credit.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Programs Leading to an Associates Degree

**Fashion Merchandising**
Consumer Science and Design Technologies
Major S1308

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

**Requirements for the Major**

**Required courses:**
- FASH 9 Introduction to Fashion 3.0 CSU
- FASH 10 Clothing Construction I 3.0 CSU
- FASH 15 Fashion Strategies 3.0 CSU
- FASH 17 Textiles 3.0 CSU
- FASH 30 Fashion Design and Product Development I 3.0
- FIRE 8 Fire Company Organization 3.0 CSU

**Recommended Electives:**
- FASH 66 Visual Merchandising Display 3.0 CSU
- BUSS 50 Retail Store Management and Merchandising 3.0 CSU
- FIRE 61 Fire Investigation 1B
- PE-F 30 Physical Skills Preparation for Administration of Justice and Forestry
- SPAN 66 Spanish for Fire and Police Personnel

**Total Units 27.0**

**Fire Technology**

**Fire Technology Department**

**Major S2105**

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

**Requirements for the Major**

**Required courses:**
- EMT 90 Emergency Medical Technician I 10.0
- FIRE 7 Fire Fighting Tactics and Strategy 3.0 CSU
- FIRE 8 Fire Company Organization and Management 3.0 CSU
- FIRE 9 Fire Hydraulics 3.0 CSU
- FIRE 10 Arson and Fire Investigation 3.0 CSU
- FIRE 11 Fire Apparatus and Equipment 3.0 CSU
- FIRE 12 Wildland Fire Control 4.0 CSU
- FIRE 86 Basic Fire Academy 12.0
- PE-F 53 Physical Training 2.5 CSU

**Recommended Electives:**
- FIRE 20 Fire Instructor 1A
- FIRE 21 Fire Instructor 1B
- FIRE 30 Fire Management 1
- FIRE 8 Fire Company Organization and Management
- FIRE 30 Fire Management 1

**Total Units 23.5 – 40.0**

**Fire Technology - Administration**

**Fire Technology Department**

**Major S2106**

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

**Requirements for the Major**

**Required courses:**
- BUSA 7 Principles of Accounting 5.0 CSU
- CISB 11 Computer Information Systems 3.5 CSU
- CISP 11 Basic Programming 4.0 CSU
- FIRE 1 Fire Protection Organization 3.0 CSU
- FIRE 3 Fire Protection Equipment 3.0 CSU
- FIRE 4 Building Construction for Fire Protection 3.0 CSU
- FIRE 5 Fire Behavior and Combustion 3.0 CSU
- FIRE 6 Hazardous Materials/ICS 3.0

**Recommended Electives:**
- FIRE 20 Fire Instructor 1A
- FIRE 21 Fire Instructor 1B
- SPAN 66 Spanish for Fire and Police Personnel

**Total Units 18.5**

**Fire Technology - Administrative Communications**

**Fire Technology Department**

**Major S2107**

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

**Requirements for the Major**

**Required courses:**
- BUSA 7 Principles of Accounting 5.0 CSU
- CISB 11 Computer Information Systems 3.5 CSU
- FIRE 1 Fire Protection Organization 3.0 CSU
- FIRE 20 Fire Instructor 1A 2.0
- FIRE 21 Fire Instructor 1B 2.0

**Total Units 15.5**

**Recommended Electives:**
- FIRE 2 Fire Prevention Technology
- FIRE 3 Fire Management 1
- FIRE 40 Fire Prevention 1A
- FIRE 41 Fire Prevention 1B
- SPAN 66 Spanish for Fire and Police Personnel

**Fire Technology - Administrative Law**

**Fire Technology Department**

**Major S2108**

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

**Requirements for the Major**

**Required courses:**
- BUSA 7 Principles of Accounting 5.0 CSU
- CISB 11 Computer Information Systems 3.5 CSU
- FIRE 1 Fire Protection Organization 3.0 CSU
- FIRE 2 Fire Prevention Technology 3.0 CSU
### Programs Leading to an Associates Degree

#### Fire Technology - Fire Management

**Fire Technology Department**
**Major S2109**

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

**Requirements for the Major**

**Required courses:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>FIRE 40</td>
<td>Fire Prevention 1A</td>
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</tr>
<tr>
<td>FIRE 41</td>
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<td>2.0</td>
</tr>
<tr>
<td>Total Units</td>
<td></td>
<td>21.5</td>
</tr>
</tbody>
</table>

**Recommended Electives:**

- FIRE 60 Arson and Fire Investigation 3.0 CSU
- FIRE 50 Fire Command 1B 2.0
- Total Units 35.0

#### FIRE 60 Fire Investigation 1A

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

**Requirements for the Major**

**Required courses:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>FIRE 40</td>
<td>Fire Prevention 1A</td>
<td>2.0</td>
</tr>
<tr>
<td>FIRE 41</td>
<td>Fire Prevention 1B</td>
<td>2.0</td>
</tr>
</tbody>
</table>

**Total Units 30.0**

**Recommended Electives:**

- EMT 90 Emergency Medical Technician 1 2.0
- FIRE 80 Fire Company Organization and Management 2.0
- Total Units 30.0

**Programs Leading to an Associates Degree**

**Fire Technology - Fire Training**

**Fire Technology Department**
**Major S2111**

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

**Requirements for the Major**

**Required courses:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
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<td>Fire Protection Organization</td>
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</tr>
<tr>
<td>FIRE 2</td>
<td>Fire Prevention Technology</td>
<td>3.0</td>
</tr>
<tr>
<td>FIRE 3</td>
<td>Fire Protection Equipment and Systems</td>
<td>3.0</td>
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<tr>
<td>FIRE 4</td>
<td>Building Construction for Fire Protection</td>
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<tr>
<td>FIRE 5</td>
<td>Fire Behavior and Combustion</td>
<td>3.0</td>
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<tr>
<td>FIRE 6</td>
<td>Hazardous Materials/ICS</td>
<td>3.0</td>
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<tr>
<td>FIRE 7</td>
<td>Fire Fighting Tactics and Strategy</td>
<td>3.0</td>
</tr>
<tr>
<td>FIRE 10</td>
<td>Arson and Fire Investigation</td>
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<tr>
<td>FIRE 20</td>
<td>Fire Inspector 1A</td>
<td>2.0</td>
</tr>
<tr>
<td>FIRE 21</td>
<td>Fire Inspector 1B</td>
<td>2.0</td>
</tr>
<tr>
<td>FIRE 22</td>
<td>Fire Inspector 2A</td>
<td>2.0</td>
</tr>
<tr>
<td>FIRE 23</td>
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</tr>
<tr>
<td>FIRE 24</td>
<td>Fire Inspector 2c</td>
<td>2.0</td>
</tr>
<tr>
<td>FIRE 30</td>
<td>Fire Management 1</td>
<td>2.0</td>
</tr>
</tbody>
</table>

**Total Units 33.0**

**Recommended Electives:**

- EMT 90 Emergency Medical Technician 1 2.0
- FIRE 80 Fire Company Organization and Management 2.0
- Total Units 30.0

**Fire Technology - Private Fire Service**

**Fire Technology Department**
**Major S2112**

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

**Requirements for the Major**

**Required courses:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>FIRE 1</td>
<td>Fire Protection Organization</td>
<td>3.0</td>
</tr>
<tr>
<td>FIRE 2</td>
<td>Fire Prevention Technology</td>
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</tr>
<tr>
<td>FIRE 3</td>
<td>Fire Protection Equipment and Systems</td>
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<td>FIRE 4</td>
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<td>FIRE 7</td>
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<td>3.0</td>
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<td>FIRE 10</td>
<td>Arson and Fire Investigation</td>
<td>3.0</td>
</tr>
<tr>
<td>FIRE 20</td>
<td>Fire Inspector 1A</td>
<td>2.0</td>
</tr>
<tr>
<td>FIRE 21</td>
<td>Fire Inspector 1B</td>
<td>2.0</td>
</tr>
<tr>
<td>FIRE 22</td>
<td>Fire Inspector 2A</td>
<td>2.0</td>
</tr>
<tr>
<td>FIRE 23</td>
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</tr>
<tr>
<td>FIRE 24</td>
<td>Fire Inspector 2c</td>
<td>2.0</td>
</tr>
<tr>
<td>FIRE 30</td>
<td>Fire Management 1</td>
<td>2.0</td>
</tr>
</tbody>
</table>

**Total Units 33.0**

**Recommended Electives:**

- EMT 90 Emergency Medical Technician 1 2.0
- FIRE 80 Fire Company Organization and Management 2.0
- Total Units 30.0
### Programs Leading to an Associates Degree

#### General Business

**Accounting and Management Department**

**Major S0501**

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

**Requirements for the Major**

**Required courses:**

- BUSA 7 Principles of Accounting - Financial 5.0 CSU,UC
- BUSA 72 Bookkeeping - Accounting 5.0
- BUSL 18 Business Law 3.0 CSU,UC
- BUSL 61 Business Organization and Management 3.0 CSU,UC
- BUSM 60 Human Relations in Business 3.0 CSU
- BUSM 61 Business Organization 3.0 CSU
- BUSM 10 Principles of Continuous Quality Improvement 3.0
- BUSM 20 Principles of Business 3.0 CSU
- BUSM 62 Human Resource Management 3.0
- BUSO 25 Business Communications 3.0 CSU
- BUSO 5 Business English 3.0
- CISB 15 Microcomputer Applications 2.0 - 4.0 CSU
- COMP Computer Information Systems: Beginning 2.0 - 4.0 CSU
- BUSA 96 Business Law 3.0 CSU
- BUSA 97 Business Law - Honors 3.0
- BUSL 18H Business Law - Honors 3.0
- BUSL 18 Business Law 3.0 CSU
- BUSM 60 Human Relations in Business 3.0 CSU
- BUSM 61 Business Organization 3.0 CSU
- BUSM 10 Principles of Continuous Quality Improvement 3.0
- BUSO 25 Business Communications 3.0 CSU
- BUSO 5 Business English 3.0
- CISB 15 Microcomputer Applications 2.0 - 4.0 CSU
- COMP Computer Information 2.0 - 4.0 CSU
- BUSA 96 Business Law 3.0 CSU
- BUSA 97 Business Law - Honors 3.0
- BUSL 18 Business Law 3.0 CSU
- BUSL 18H Business Law - Honors 3.0
- BUSM 60 Human Relations in Business 3.0 CSU
- BUSM 61 Business Organization 3.0 CSU
- BUSM 10 Principles of Continuous Quality Improvement 3.0

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

- BUSA Business: Accounting 1.0 - 5.0 CSU
- BUSC Business: Economics 3.0 CSU
- BUSL Business: Law 1.0 - 3.0 CSU
- BUSM Business: Management 1.0 - 4.0 CSU
- BUSS Business: Sales, Marketing and Marketing 1.0 - 4.0 CSU
- CJS 1 Criminal Justice 2.0 - 4.0 CSU
- COMP Computer Applications 0.5 - 4.0 CSU

**Total Units 42.0**

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#### Histologic Technician Training

**Biological Sciences Department**

**Major S1211**

This program provides on-campus and on-site technical training in the field of histotechnology, focusing on routine tissue sample preparation, special stains and techniques such as immunohistochemistry, and in situ hybridization. Training on campus will utilize samples routinely prepared in both clinical and research facilities. As part of their formal training, students of histotechnology will work through study guides provided by the American Society of Clinical Pathologists (ASCP) for its certification examination. Partnerships with local facilities will allow for work experience and internship sites, required for certification of histotechnology graduates, and will provide further training for those interested in research and/or careers in the private sector.

**Requirements for the Major**

**Required courses:**

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

**Total Units 41.0 - 44.0**

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#### Horse Ranch Management

**Agricultural Sciences Department**

**Major S0102**

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

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

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

**Requirements for the Major**

**Required courses:**

- AGAN 2 Animal Nutrition 3.0 CSU
- AGAN 94 Animal Breeding 3.0
- AGLI 16 Horse Production 4.0 CSU
- AGLI 18 Horse Ranch Management 4.0 CSU
- AGLI 19 Horse Hoof Care 2.0 CSU
- AGLI 20 Horse Behavior and Training 2.0
- AGLI 96 Animal Sanitation and Disease Control 3.0 CSU
- AGLI 97 Artificial Insemination of Livestock 2.0

**Total Units 33.0 - 36.0**

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#### Hospitality and Restaurant Management

**Consumer Science and Design Technologies**

**Major S1307**

This program provides students with an excellent background for a career in the hospitality and restaurant management industry. Students will have the education necessary for many entry-level positions. Students may wish to pursue a Certificate in Hospitality Management, Restaurant Management, Food Services, or Catering. This program is designed to articulate with the Collins School of Hospitality Management at Cal Poly Pomona, as well as other universities. Students wishing to transfer should consult with Hospitality and Restaurant Management faculty or counselor or advisor to discuss transfer options.

**Requirements for the Major**

**Required courses:**

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

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

- HRM 61 Menu Planning 3.0 CSU
- HRM 62 Catering 3.0 CSU
- HRM 93 Work Experience in Restaurant/Hospitality 3.0 CSU
- NF 20 Principles of Foods With Lab 3.0 CSU

**Total Units 28.5**

**Recommended Electives:**

- HRM 91 Work Experience in Restaurant/Hospitality
Human Resource Management
Accounting and Management Department
Major S0530

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

Requirements for the Major

Required courses:

- ANTH 22 General Cultural Anthropology 3.0 CSU,UC
- BUSA 70 Payroll and Tax Accounting 3.0
- BUSL 19 Advanced Business Law 3.0 CSU,UC
- BUSM 20 Principles of Business 3.0 CSU,UC
- BUSM 60 Human Relations in Business 3.0 CSU
- BUSM 61 Business Organization and Management 3.0 CSU
- BUSM 62 Human Resource Management 3.0
- BUSO 25 Business Communications 3.0 CSU
- CSB 15 Microcomputer Applications 4.0 CSU,UC

Total Units 28.0

Interior Design
Consumer Science and Design Technologies
Major S1301

The program is available as a Certificate (Interiors Program) should consult with a counselor or advisor to discuss transferability of courses.

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

Required courses:

- ARCH 11 Architectural Drawing 3.0 CSU,UC
- ARCH 13 Architectural Illustration 3.0 CSU
- ARCH 15 Architectural Working Drawings - I 3.0 CSU
- BUS 35 Professional Selling 3.0 CSU
- BUS 101 Fundamentals of Interior Design 3.0 CSU
- ID 105 Interior Design Studio I 2.0 CSU
- ID 120 Interior Design Careers 2.0 CSU
- ID 130 Applied Color and Design Theory 4.0 CSU
- ID 150 Interior Materials and Products 4.0 CSU
- ID 170 Space Planning 3.0 CSU
- ID 180 History of Interior Architecture & Furnishings I 3.0 CSU
- ID 190 History of Interior Architecture & Furnishings II 3.0 CSU
- ID 210 Fundamentals of Lighting 3.0
- ID 215 Interior Design Studio II 2.0 CSU
- ID 230 Business and Professional Practice 3.0
- ID 240A Interior Design Internship Seminar 1.0
- ID 240B Interior Design Internship Seminar 1.0
- ID 265 Interior Design Studio III - Kitchens 2.0
- ID 275 Interior Design Studio IV - Bath Design 2.0
- INSP 70 Elements of Construction 3.0 CSU
- INSP 71 Construction Estimating 3.0 CSU

Total Units 28.0

Recommended Electives:

- ARTD 15A Drawing: Beginning 3.0
- BUSA 72 Bookkeeping - Accounting 3.0
- BUSM 60 Human Relations in Business 3.0
- BUSM 66 Small Business Management 3.0
- BUSM 67 Business Organization and Management 3.0
- BUSM 85 Special Issues in Business 3.0
- BUSM 86 Special Issues in Marketing 3.0

Interior Design - Kitchen And Bath Design
Consumer Science and Design Technologies
Major S1302

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

Required courses:

- ARCH 11 Architectural Drawing 3.0 CSU,UC
- ARCH 15 Architectural Working Drawings - I 3.0 CSU
- ARCH 16 Basic CAD and Computer Application 4.0 CSU,UC
- BUS 35 Professional Selling 3.0 CSU
- ID 100 Fundamentals of Interior Design 3.0 CSU
- ID 105 Interior Design Studio I 2.0 CSU
- ID 120 Interior Design Careers 2.0 CSU
- ID 130 Applied Color and Design Theory 4.0 CSU
- ID 150 Interior Materials and Products 4.0 CSU
- ID 170 Space Planning 3.0 CSU
- ID 180 History of Interior Architecture & Furnishings I 3.0 CSU
- ID 190 History of Interior Architecture & Furnishings II 3.0 CSU
- ID 210 Fundamentals of Lighting 3.0
- ID 215 Interior Design Studio II 2.0 CSU
- ID 230 Business and Professional Practice 3.0
- ID 240A Interior Design Internship Seminar 1.0
- ID 240B Interior Design Internship Seminar 1.0
- ID 265 Interior Design Studio III - Kitchens 2.0
- ID 275 Interior Design Studio IV - Bath Design 2.0
- INSP 70 Elements of Construction 3.0 CSU
- INSP 71 Construction Estimating 3.0 CSU

Total Units 56.0

Recommended Electives:

- ARTD 15A Drawing: Beginning 3.0
- BUSA 72 Bookkeeping - Accounting 3.0
- BUSM 60 Human Relations in Business 3.0
- BUSM 66 Small Business Management 3.0
- BUSM 67 Business Organization and Management 3.0
- BUSM 85 Special Issues in Business 3.0
- BUSM 86 Special Issues in Marketing 3.0

International Business
Accounting and Management Department
Major S0507

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

Required courses:

- BUSL 20 International Business Law 3.0
- BUSM 20 Principles of Business 3.0 CSU,UC
- BUSM 50 World Culture: A Business Perspective 3.0
- BUSM 60 Human Relations in Business 3.0
- BUSM 61 Business Organization and Management 3.0
- BUSM 66 Small Business Management 3.0
- BUSM 67 Business Organization and Management 3.0
- BUSM 85 Special Issues in Business 3.0
- BUSM 86 Special Issues in Marketing 3.0

PLUS

Select one (1) course from:

- BUSM 70 International Marketing Concepts 3.0
- CHIN 1 Beginning Chinese 4.0 CSU,UC
- FRCH 1 Elementary French 4.0 CSU,UC
- GER 1 Elementary German 4.0 CSU,UC
- ITAL 1 Elementary Italian 4.0 CSU,UC
- JPN 1 Elementary Japanese 4.0 CSU,UC
- SPAN 1 Elementary Spanish 4.0 CSU,UC

Total Units 27.0 - 28.0
Programs Leading to an Associates Degree

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

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

PLUS
Select four (4) courses from:
- ADU 6 Concepts of Enforcement Services 3.0
- ADU 13 Concepts of Traffic Services 3.0
- ADU 20 Principles of Investigation 3.0 CSU
- ADU 38 Narcotics Investigation 3.0
- ADU 59 Gangs in the Community/Corrections 3.0 CSU
- ADU 74 Vice Control 3.0
- CORS 30 Ethnic Relations in Corrections 3.0
- CORS 40 Crime and Delinquency 3.0
- CORS 45 The Violent Offender 3.0

Total Units 30.0

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

Licensed Vocational Nurse to RN
Nursing Department
Major S1201
The Mt. San Antonio College Nursing Program, approved and accredited by the California Board of Registered Nursing, is a two-year program designed to prepare men and women to give direct nursing care to clients in various practice settings. The program consists of course work in nursing, science, general education and clinical nursing practice at local hospitals and health agencies. Graduates of the program receive an Associate of Science Degree in Nursing and are eligible to take the NGLEX-RN examination leading to licensure as a Registered Nurse. The Licensed Vocational Nurse is provided career mobility in the Nursing Program. The Licensed Vocational Nurse may choose between earning an Associate of Science Degree in Nursing in Nursing or completing the UN 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 Development or PSYC 14 Developmental Psychology

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

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

Total Units 28.0

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

Total Units 24.0 - 27.0

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

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

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

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

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

APPOINTMENTS FOR ELIGIBILITY VERIFICATION WILL ONLY BE MADE DURING THE FOLLOWING MONTHS:
- September 1 - October 31
- March 1 - April 30

Students should also be aware that once they have been admitted to the Nursing program and before beginning the clinical portion of the program, they will need to be able to pass both a criminal background check, including a screening by the Office of Inspector General for welfare or Social Security fraud, as well as testing negative for drug use.

All applicants are required to meet the essential functions for success in the nursing program.

Physical Demands:
- Perform prolonged, extensive, or considerable standing/walking, lifting positioning, pushing, and/or transferring patients.
Manufacturing Technology
Aircraft Maintenance Tech & Manufacturing Dept.
Major S0918

This curriculum is designed to prepare the student for entrance into the manufacturing field in one of the machining occupations, such as machinist (manual, N/C, and CAD/CAM), or machinist apprentice. Graduates may enter the manufacturing field in areas dealing with production, research and development, tool and die construction, mold making, or computerized manufacturing. Laboratory practice utilizes industrial types of equipment and precision measuring instruments to provide training in the various machining occupations. Setup and tooling procedures and part verification upon completion of the metal removing process are covered. Instruction on all types of lathes, mills, grinders, and specialized equipment such as EDM and CNC is included. Supplementary instruction is also provided in bench work, layout, inspection process, blueprint reading, metal composition, heat treatment, assembly procedures, jig and fixture design, and construction.

Requirements for the Major
Required courses:

- AGAG 20 Microcomputer Applications 3.0 CSU,UC in Agriculture
- AGAG 1 Food Production, Land Use and Politics - A Global Perspective 3.0 CSU,UC
- AGAG 59 Work Experience in Agriculture 1.0 – 4.0
- AGAN 1 Animal Science 3.0 CSU,UC
- AGAN 2 Animal Nutrition 3.0 CSU
- AGAN 94 Animal Breeding 3.0
- AGLU 14 Swine Production 3.0 CSU
- AGLU 16 Horse Production 4.0 CSU,UC
- AGLU 17 Sheep Production 3.0 CSU
- AGLU 30 Beef Production 3.0 CSU
- AGLU 34 Livestock Judging and Selection 2.0 CSU,UC
- AGLU 96 Animal Sanitation and Disease Control 3.0 CSU

PLUS
Select six (6) units from:

- AGOR 53 Small Engine Repair I 3.0 CSU
- AGOR 71 Landscape Construction 3.0 CSU Fundamentals
- BUSM 20 Principles of Business 3.0 CSU,UC
- BUSM 66 Small Business Management 3.0 CSU
- BUSS 35 Professional Selling 3.0 CSU
- BUSS 36 Principles of Marketing 3.0 CSU

Total Units 43.0 - 46.0

Marketing Management
Business Administration Department
Major S0510

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

Requirements for the Major
Required courses:

- BUSA 7 Principles of Accounting - Financial 5.0 CSU,UC
- BUSA 72 Bookkeeping - Accounting 5.0
- BUSM 20 Principles of Business 3.0 CSU,UC
- BUSM 61 Business Organization and Management 3.0 CSU
- BUSO 25 Business Communications 3.0 CSU
- BUSS 35 Professional Selling 3.0 CSU
- BUSS 36 Principles of Marketing 3.0 CSU
- BUSS 70 International Marketing Concepts 3.0
- BUSS 85 Special Issues in Marketing 2.0
- CISB 15 Microcomputer Applications 4.0 CSU,UC

PLUS

Select one (1) course from:

- BUSC 1A Principles of Economics - Macroeconomics 3.0 CSU,UC
- BUSC 1AH Principles of Economics - Macroeconomics - Honors 3.0 CSU,UC
- BUSC 1B Principles of Economics - Microeconomics 3.0 CSU,UC
- BUSC 1BH Principles of Economics - Microeconomics - Honors 3.0 CSU,UC
- BUSC 17 Applied Business Statistics 3.0 CSU,UC
- BUSM 60 Human Relations in Business 3.0 CSU
- BUSO 5 Business English 3.0

Total Units 32.0

Livestock Management
Agricultural Sciences Department
Major S0103

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

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

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

Requirements for the Major
Required courses:

- AGAN 1 Animal Science 3.0 CSU,UC
- AGAN 2 Animal Nutrition 3.0 CSU
- AGAN 94 Animal Breeding 3.0
- AGLI 14 Swine Production 3.0 CSU
- AGLI 16 Horse Production 4.0 CSU,UC
- AGLI 17 Sheep Production 3.0 CSU
- AGLI 30 Beef Production 3.0 CSU
- AGLI 34 Livestock Judging and Selection 2.0 CSU,UC
- AGLI 96 Animal Sanitation and Disease Control 3.0 CSU

PLUS

Select six (6) units from:

- AGOR 53 Small Engine Repair I 3.0 CSU
- AGOR 71 Landscape Construction 3.0 CSU Fundamentals
- AGAG 59 Work Experience in Agriculture 1.0 – 4.0
- AGAG 91 Agricultural Calculations 3.0
- AGAG 1 Agricultural Calculations 3.0
- AGAG 91 Agricultural Calculations 3.0
- AGAM 1 Animal Science 3.0 CSU,UC
- AGAN 2 Animal Nutrition 3.0 CSU
- AGAN 94 Animal Breeding 3.0
- AGLU 14 Swine Production 3.0 CSU
- AGLU 16 Horse Production 4.0 CSU,UC
- AGLU 17 Sheep Production 3.0 CSU
- AGLU 30 Beef Production 3.0 CSU
- AGLU 34 Livestock Judging and Selection 2.0 CSU,UC
- AGLU 96 Animal Sanitation and Disease Control 3.0 CSU

Total Units 43.0 - 46.0
Programs Leading to an Associates Degree

Mental Health Technology - Psychiatric Technician
Psychiatric Technician Department
Major S1208
Completion of coursework leads to an Associate of Science Degree. The Psychiatric Technician Program will prepare students to take the California State Licensure Examination for Psychiatric Technicians.

Requirements for the Major

Required courses:
ment 40 Introduction to Interviewing and Counseling 3.0
ment 56 Medical - Surgical Nursing 9.0
ment 56l Clinical Experience 4.0
ment 58d Advanced Medical - Surgical Nursing and Pharmacology for PT 4.0
ment 58l Advanced Medical - Surgical Nursing for Psychiatric Technicians Clinical 1.5
ment 70 Introduction to Psychiatric Technology 1.5
ment 70l Introduction to Psychiatric Technology Clinical Technicians 2.0
ment 72 Nursing Care of the Developmentally Disabled Person 7.0
ment 72l Nursing Care of the Developmentally Disabled Person - Clinical 5.0
ment 73l Psychiatric Nursing for Psychiatric Technicians Clinical 5.0
ment 73t Psychiatric Nursing for Psychiatric Technicians 6.0
ment 82 Work Experience in Mental Health Technology 2.0
psy 1A Introduction to Psychology 3.0 CSU,UC Total Units 53.0

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

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

The student will qualify to take the California State Board Examination upon completion of all the above courses, except MENT 82.

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

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

b) Be 18 years of age.

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

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

e) Take the required English Placement Test (AWE).

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 arrange to have your test scores forwarded to the Technology and Health Division Office with no fee.)

Eligibility for ENGL 68 is advised. Testing is administered by the Assessment Center, located in the Student Services Center.

Arrangements should be made with them to begin a day and time to take the English Placement Test, if required. The Assessment Center is open Monday through Friday. You may contact them at (909) 594-5611, ext. 4265.

Testing is administered by the Assessment Center, located in the Student Services Center.

Arrangements should be made with them to begin a day and time to take the English Placement Test, if required. The Assessment Center is open Monday through Friday. You may contact them at (909) 594-5611, ext. 4265.

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

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

NOTE: Concerning Entrance Requirements

“a” and “c”, if the courses were taken and/or the degree obtained at Mt. San Antonio College, it is not necessary to request transcripts.

Note in the mailing address the program for which your transcript is being sent to the Technology and Health Division Office.

EXAMPLE: Mt. San Antonio College Technology and Health Division Psychiatric Technician Program 11000 North Grand Avenue Walnut, CA 91789-1399

h) A physical examination, including specific immunizations, and consent/disclaimer for Hepatitis A/B vaccine is required of all candidates prior to beginning classes. Students must provide proof that he/she does not have Tuberculosis. These requirements are in accordance with the healthcare agency policy that insures that students are in good health and free from communicable disease and able to perform their training functions. Drug testing may also be required as part of this physical examination. Proof of high school graduation and malpractice insurance are required of all candidates upon acceptance.

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

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

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

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

All applicants are required to meet the Essential Functions for Success in the Mental Health Technology - Psychiatric Technician Program.

Physical Demands:

- Perform prolonged, extensive, or considerable standing/walking, lifting, 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
- Distance vision: ability to see clearly up to 20 feet or more
- Depth perception: ability to judge distance and space relationships
- Near vision: ability to see clearly up to 20 inches or less
- Hearing: able to recognize a full range of tones

Working Environment:

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

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

Nursing Department
Major S1203

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

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

Non-course requirements:
1. An overall grade point average of 2.5 for the Human Anatomy, Human Physiology, and Microbiology prerequisite courses with no grade less than a "C" for each course and no more than one repetition of any one of the courses.
2. A cumulative grade point average (GPA) of 2.5 for all college coursework completed.
3. Eligibility for Math 51
4. High school graduation or GED or academic degree from an accredited college/university in the United States.
5. Criminal background check and drug screening must be completed prior to any patient contact.
6. A physical examination, including specific immunizations is required of all candidates prior to the beginning of nursing classes.
7. Current Level C-Provider CPR certification

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

Requirements for Nursing

Required courses:
NURS 1A The Nursing Process I 4.7 CSU
NURS 1B The Nursing Process II 4.7 CSU
NURS 2 Pharmacology 2.0 CSU
NURS 3 Medical-Surgical Nursing: Locomotion/Sensation/Integument/Oncology/Immunology 3.5 CSU
NURS 4 Maternity Nursing 3.0 CSU
NURS 5 Psychiatric Nursing 3.0 CSU
NURS 6 Pediatric Nursing 3.0 CSU
NURS 7 Medical-Surgical Nursing: Nutrition/Elimination/Surgical Asepsis 7.0 CSU
NURS 8 Medical-Surgical Nursing: Circulation and Oxygenation 5.0 CSU
NURS 9 Leadership in Nursing 1.0 CSU
NURS 10 Medical-Surgical Nursing: Integration/Regulation 4.0 CSU
NURS 11 Preceptorship in Nursing 2.0 CSU
Total Units 43.0

Requirements for the Major

ANAT 35 Human Anatomy 5.0 CSU, UC
ANAT 36 Human Physiology 5.0 CSU, UC
or
ANAT 10A Introductory Human Anatomy and Physiology 4.0 CSU, UC
ANAT 10B Introductory Human Physiology 4.0 CSU, UC
or
MICR 1 Principles of Microbiology 5.0 CSU
MICR 22 Microbiology 4.0 CSU, UC
ENGL 1A Freshman Composition 3.0 CSU
CHLD 10 Child Growth and Development 3.0 CSU, UC
or
PSYC 14 Developmental Psychology 3.0 CSU, UC
PSYC 1A Introduction to Psychology 3.0 CSU
SPECH 1A Public Speaking 3.0 CSU, UC
Total Units 24.0 - 27.0

ANAT 10A must be completed prior to entering into NURS 5: Psychiatric Nursing, CHLD 10, or PSYC 14 must be completed prior to entering into NURS 6: Medical-Surgical Nursing.

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

Requirements for the Associate Degree

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

Application Process:

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

Procedure:

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

1) Students must complete all course prerequisites prior to requesting an appointment for certifying readiness to enter into the Nursing lottery process:
2) Eligibility for entering the Nursing admission lottery will be based on the following performance criteria:
   a) A grade point average of 2.5 in Human Anatomy, Human Physiology and Microbiology.
   b) An overall grade of "C" or higher;
   c) A minimum cumulative grade point average of 2.5 in all college coursework completed at the time of certification;
   d) Students must have eligibility to enroll in MATH 51, Elementary Algebra.

3) The eligibility appointment:
   a) Once a student has completed all course prerequisites, they may request an appointment with a counselor or educational advisor.
   b) Students who have completed coursework at other colleges must bring the following information to their eligibility appointment:
      • 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 may need to have their transcripts evaluated by an approved international transcript evaluation agency.
      • Students must bring their final evaluation from the university outside of the United States.

APPOINTMENTS FOR ELIGIBILITY VERIFICATION WILL ONLY BE MADE DURING THE FOLLOWING MONTHS:
   • September 1 - October 31
   • March 1 - April 30

Students should also be aware that once they have been admitted to the Nursing Program and before beginning the clinical portion of the program, they will need to be able to pass both a criminal background check, including a screening by the Office of Inspector General for welfare or Social Security fraud, as well as testing negative for drug use.

FINAL SELECTION OF STUDENTS FOR EACH NURSING CLASS WILL BE DETERMINED BY LOTTERY.

APPLICANTS ARE REQUIRED TO MEET THE ESSENTIAL FUNCTIONS FOR SUCCESS IN THE NURSING PROGRAM.

Physical Demands:

• Perform prolonged, extended, or considerable standing/walking, lifting, positioning, pushing and/or transferring patients
• Possess the ability to perform fine motor movements with hands and fingers
• Possess the ability for extremely heavy effort (lift/carry 50 lbs. or more)
Programs Leading to an Associates Degree

- Perform considerable reaching, stooping, bending, kneeling, crouching.

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

Working Environment:
- May be exposed to infectious and contagious disease, without prior notification
- Regularly exposed to the risk of blood borne diseases
- Exposed to hazardous agents, body fluids and wastes
- Exposed to odorous chemicals and specimens
- Subject to hazards of flammable, explosive gases
- Subject to burns and cuts
- May be exposed to infectious and contagious disease
- Exposed to products containing latex
- Subject to many interruptions
- Requires decisions/actions related to end of life issues
- Exposed to products containing latex

English Language Skills:
Although proficiency in English is not a criteria for admission into the nursing program, students are encouraged to be able to speak, write and read English to complete classes successfully and to ensure safety for themselves and for others.
Paralegal/Legal - Corporations/Business Specialty
Business Administration Department
Major S1405

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

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

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

Requirements for the Major

Required courses:

- BUSL 18 Business Law 3.0 CSU, UC
- BUSL 18H Business Law - Honors 3.0 CSU, UC
- BUSL 19 Advanced Business Law 3.0 CSU, UC
- BUSL 20 International Business Law 3.0
- PLGL 30 Introduction to Paralegal/Legal 3.0 CSU
- PLGL 31A Legal Analysis and Writing 3.0 CSU
- PLGL 31B Advanced Legal Analysis and Writing 3.0 CSU
- PLGL 33A Civil Procedure Pretrial 3.0 CSU

Recommended Electives:

- PLGL 33B Civil Procedure-Trial and Post-Trial 3.0 CSU
- PLGL 35A Law Office Procedures 3.0 CSU
- PLGL 35B Automated Law Office Procedures 3.0
- PLGL 37 Tort Law 3.0 CSU
- PLGL 38 Employment and Ethical Issues in Paralegalsim 2.0
- PLGL 39 Contract Law 3.0 CSU

Total Units 38.0

Recommended Electives:

- PLGL 36 - Paralegal Internship and PLGL 50 - Comparative Law.

Special Information:

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

Paralegal/Legal - Criminal Specialty
Business Administration Department
Major S1402

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

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

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

Requirements for the Major

Required courses:

- PLGL 30 Introduction to Paralegal/Legal 3.0 CSU
- PLGL 31A Legal Analysis and Writing 3.0 CSU
- PLGL 31B Advanced Legal Analysis and Writing 3.0 CSU
- PLGL 33A Civil Procedure Pretrial 3.0 CSU
- PLGL 33B Civil Procedure-Trial and Post-Trial 3.0 CSU
- PLGL 35A Law Office Procedures 3.0 CSU
- PLGL 35B Automated Law Office Procedures 3.0
- PLGL 37 Tort Law 3.0 CSU
- PLGL 38 Employment and Ethical Issues in Paralegalism 2.0
- PLGL 39 Contract Law 3.0 CSU
- PLGL 48 Criminal Law and Procedures 3.0 CSU
- PLGL 49 Evidence Law 3.0 CSU

Total Units 35.0

Recommended Electives:

- PLGL 36 - Paralegal Internship

Special Information:

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

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

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

The paralegal program stresses practical application and the development of job skills as well as teaching legal theory. The program is designed to enhance the ability of students to reason, understand and apply correct principles of law by teaching analytical and critical thinking skills as opposed to role learning. Graduates of the program will qual...
**Paralegal/Legal - Landlord/Tenant Specialty**

**Business Administration Department**

**Major S1404**

The Paralegal/Legal - Landlord/Tenant Specialty program is intended to prepare students for employment as paralegals in both private and public sectors following graduation. The American Bar Association (ABA) By-Laws Section 21.12 uses the terms paralegal and legal assistant interchangeably referring to persons who although not members of the legal profession, are qualified through education, training, or work experience to perform legal work. Paralegals/legal assistants must comply with the ethical restrictions in the practice of law by nonlawyers. The paralegal program stresses practical application and the development of job skills as well as teaching legal theory. The program is designed to enhance the ability of students to reason, understand and apply correct principles of law by teaching analytical and critical thinking skills as opposed to rote learning. Graduates of the program will qualify for entry level employment and will possess skills for advancement and specialized areas in the paralegal profession. Students wishing a Bachelor’s Degree (transfer program) should consult with a counselor or advisor to discuss transferability of courses.

### Recommended Electives:

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

### Special Information:

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

Students developing their educational plan should select another course from the Mt.SAC General Education area which will satisfy that area’s General Education requirement.

### Requirements for the Major

#### Required courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>PLGL 30 Introduction to Paralegal/Legal</td>
<td>3.0</td>
</tr>
<tr>
<td>PLGL 31A Legal Analysis and Writing</td>
<td>3.0</td>
</tr>
<tr>
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<td>2.0</td>
</tr>
<tr>
<td>PLGL 39 Contract Law</td>
<td>3.0</td>
</tr>
<tr>
<td>PLGL 40 Landlord-Tenant Law</td>
<td>3.0</td>
</tr>
<tr>
<td>PLGL 41 Property Law</td>
<td>3.0</td>
</tr>
</tbody>
</table>

**Total Units 35.0**

### Recommended Electives:

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

### Special Information:

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

Students developing their educational plan should select another course from the Mt.SAC General Education area which will satisfy that area’s General Education requirement.

### Requirements for the Major

#### Required courses:

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<tbody>
<tr>
<td>AGAB 20 Microcomputer Applications in Agriculture</td>
<td>3.0</td>
</tr>
<tr>
<td>AGAN 2 Animal Nutrition</td>
<td>3.0</td>
</tr>
<tr>
<td>AGAN 5 Animal Breeding</td>
<td>3.0</td>
</tr>
<tr>
<td>AGAN 94 Animal Sanitation and Disease Control</td>
<td>3.0</td>
</tr>
<tr>
<td>AGPE 70 Pet Shop Management</td>
<td>3.0</td>
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<tr>
<td>AGPE 71 Canine Management</td>
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<tr>
<td>AGPE 72 Feline Management</td>
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<tr>
<td>AGPE 73 Tropical and Coldwater Fish Management</td>
<td>2.0</td>
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<tr>
<td>AGPE 74 Reptile Management</td>
<td>2.0</td>
</tr>
<tr>
<td>AGPE 75 Aviculture - Cage and Aviary Birds</td>
<td>3.0</td>
</tr>
</tbody>
</table>

**Total Units 34.0**

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**Programs Leading to an Associates Degree**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>AGPE 1 Food Production, Land Use and Politics - A Global Perspective</td>
<td>3.0</td>
</tr>
<tr>
<td>AGOR 4 Park Management</td>
<td>3.0</td>
</tr>
<tr>
<td>AGOR 5 Park Facilities</td>
<td>3.0</td>
</tr>
<tr>
<td>AGOR 13 Landscape Design</td>
<td>3.0</td>
</tr>
<tr>
<td>AGOR 24 Integrated Pest Management</td>
<td>3.0</td>
</tr>
<tr>
<td>AGOR 29 Ornamental Plants - Herbaceous</td>
<td>3.0</td>
</tr>
<tr>
<td>AGOR 30 Ornamental Plants - Trees and Woody Shrubs</td>
<td>3.0</td>
</tr>
<tr>
<td>AGOR 39 Turf Grass Production and Management</td>
<td>3.0</td>
</tr>
<tr>
<td>AGOR 51 Tractor and Landscape Equipment Operations</td>
<td>3.0</td>
</tr>
<tr>
<td>AGOR 62 Landscape Irrigation - Design and Installation</td>
<td>3.0</td>
</tr>
<tr>
<td>AGOR 63 Landscape Irrigation Systems Management</td>
<td>3.0</td>
</tr>
<tr>
<td>AGOR 71 Landscape Construction Fundamentals</td>
<td>3.0</td>
</tr>
<tr>
<td>AGOR 75 Urban Arboriculture</td>
<td>3.0</td>
</tr>
<tr>
<td>AGOR 91 Work Experience in Nursery Operations</td>
<td>1.0 – 4.0</td>
</tr>
<tr>
<td>CISB 15 Microcomputer Applications</td>
<td>4.0</td>
</tr>
</tbody>
</table>

**Total Units 44.0 - 47.0**

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**Pet Science**

**Agricultural Sciences Department**

**Major S0116**

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

This program is intended to prepare students to manage a park or sports facility and also for employment following graduation. Students will learn how to design, install and manage irrigation systems, set up and implement fertilizer and pest management programs, design and properly install a complete landscape (including all plants and hardcape), and properly identify and maintain trees, shrubs and turf grasses. In addition, students will learn about personnel management, budgeting and other management topics.

### Requirements for the Major

#### Required courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
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<tbody>
<tr>
<td>AGAB 20 Microcomputer Applications in Agriculture</td>
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</tr>
<tr>
<td>AGPE 75 Aviculture - Cage and Aviary Birds</td>
<td>3.0</td>
</tr>
</tbody>
</table>

**Total Units 34.0**

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

### Requirements for the Major

#### Required courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>PLGL 30 Introduction to Paralegal/Legal</td>
<td>3.0</td>
</tr>
<tr>
<td>PLGL 31A Legal Analysis and Writing</td>
<td>3.0</td>
</tr>
<tr>
<td>PLGL 31B Advanced Legal Analysis and Writing</td>
<td>3.0</td>
</tr>
<tr>
<td>PLGL 33A Civil Procedure Pretrial</td>
<td>3.0</td>
</tr>
<tr>
<td>PLGL 33B Civil Procedure-Trial and Post-Trial</td>
<td>3.0</td>
</tr>
<tr>
<td>PLGL 35A Law Office Procedures</td>
<td>3.0</td>
</tr>
<tr>
<td>PLGL 37 Tort Law</td>
<td>3.0</td>
</tr>
<tr>
<td>PLGL 38 Employment and Ethical Issues in Paralegalism</td>
<td>2.0</td>
</tr>
<tr>
<td>PLGL 39 Contract Law</td>
<td>3.0</td>
</tr>
<tr>
<td>PLGL 40 Landlord-Tenant Law</td>
<td>3.0</td>
</tr>
<tr>
<td>PLGL 41 Property Law</td>
<td>3.0</td>
</tr>
</tbody>
</table>

**Total Units 35.0**

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The Paralegal/Legal faculty recommend that students consult with the department chairperson, counselor or advisor to file an educational plan.

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

### Requirements for the Major

#### Required courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
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<tbody>
<tr>
<td>AGAB 20 Microcomputer Applications in Agriculture</td>
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<td>AGPE 75 Aviculture - Cage and Aviary Birds</td>
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</tr>
</tbody>
</table>

**Total Units 34.0**
Photography
Commercial and Entertainment Arts
Major S1002
This program is designed to prepare the student for employment in the field of photography. A variety of career opportunities are available in photography, art, cinema, communications, industrial arts, graphics, and journalism. Students desiring a Bachelor’s Degree should consult with an advisor or catalog of the institution they wish to attend regarding transferability of courses.

Requirements for the Major
Required courses:
GRAP 10 Photo Editing with Photoshop 3.0
PHOT 10 Basic Digital and Film Photography 3.0
PHOT 11 Advanced Professional Photography 4.0
PHOT 12 Photographic Alternatives 3.0
PHOT 15 History of Photography 3.0
PHOT 16 Fashion Photography 3.0
PHOT 18 Portraiture 3.0
PHOT 17 Photocommunication 3.0
PHOT 20 Color Photography 3.0
PHOT 21 Exploring Color Photography 3.0
PHOT 28 Photography Portfolio 2.0
PHOT 30 Commercial and Illustrative Photography 3.0
Total Units 33.0

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

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

Requirements for the Major
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
PE 3 First Aid and CPR 3.0
PE 5 Advanced First Aid/ CPR/Emergency Response 3.0
PE 17 Introduction to Physical Education 3.0
PE 19 Introduction to Care/Prevention of Activity/Sports - Related Injuries 3.0
PE 34 Fitness for Living 3.0
Total Units 28.6 - 41.5

Psychiatric Technician to RN
Nursing Department
Major S1209
The Mt. San Antonio College Nursing Program, approved and accredited by the California Board of Registered Nursing, is a two-year program designed to prepare men and women to give direct nursing care to clients in various practice settings. The program consists of course work in nursing, science, general education and clinical nursing practice at local hospitals and health agencies. Graduates of the program receive an Associate of Science Degree in Nursing and are eligible to take the NCLEX-RN examination leading to licensure as a Registered Nurse.

Requirements for Nursing
Required courses:
NURS 3 Medical-Surgical Nursing 3.5
NURS 4 Maternity Nursing 3.0
NURS 6 Pediatric Nursing 3.0
NURS 7 Medical-Surgical Nursing: Nutrition/Elimination/Surgical Asepsis 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
Total Units 28.5

Requirements for the Major
Required courses:
ANAT 35 Human Anatomy 5.0
ANAT 36 Human Physiology 5.0
MICR 1 Principles of Microbiology 4.0
MICR 2 Microbiology 4.0
ENGL 1A Freshman Composition 4.0
CHLD 10 Child Growth and Development 3.0
PSYC 1A Introduction to Psychology 3.0
SPCH 1A Public Speaking 3.0
Total Units 25.0 - 27.0

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

Requirements for the Associate Degree

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

Selection Process

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

Procedure:

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

The eligibility appointment:

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

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

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

c) All students will need to bring official proof of high school graduation, GED, or college graduation from an accredited institution in the United States.

APPOINTMENTS FOR ELIGIBILITY VERIFICATION WILL ONLY BE MADE DURING THE FOLLOWING MONTHS:

- September 1 - October 31
- March 1 - April 30

Students should also be aware that once they have been admitted to the Nursing program and before beginning the clinical portion of the program, they will need to be able to pass both a criminal background check, including a screening by the Office of Inspector General for welfare or Social Security fraud, as well as testing negative for drug use. ALL APPLICANTS ARE REQUIRED TO MEET THE ESSENTIAL FUNCTIONS FOR SUCCESS IN THE NURSING PROGRAM.

Physical Demands:

- Perform prolonged, extensive, or considerable standing/walking, lifting, positioning, pushing, and/or transferring patients
- Possess the ability to perform fine motor movements with hands and fingers
- Possess the ability for extremely heavy effort (lift/carry 50 lbs. or more)
- Perform considerable reaching, stooping, bending, kneeling, and crouching

Sensory Demands:

- Color vision: ability to distinguish and identify colors (may be corrected with adaptive devices).
- Distant 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: ability to recognize a full range of tones

Working Environment:

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

English Language Skills:

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

Radio Broadcasting: Behind the Scenes

Commercial and Entertainment Arts

Major S0606

The Radio Broadcasting Behind-the-Scenes Degree is designed for students who are interested in the non-performance side of the broadcasting industry. In this major provides 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.

Requirements for the Major

Required courses:

- R-TV 01 Introduction to Broadcasting 3.0 CSU
- R-TV 09 Broadcast Sales and Promotion 3.0
- R-TV 10 Radio Management and Programming 3.0
- R-TV 11A Beginning Radio Production 3.0 CSU
- R-TV 11B Advanced Radio Production 3.0 CSU
- R-TV 12 Commercial Copywriting 3.0
- R-TV 15 Broadcast Business Practices 3.0
- R-TV 16 Broadcast Career Preparation 3.0
- R-TV 97A Radio/Entertainment Industry Seminar 1.0
- R-TV 97B Radio/Entertainment Industry Internship 1.0
- R-TV 97C KSAX Radio/Internet Radio 1.0 – 2.0 Internship

PLUS

Select nine (9) units from:

- R-TV 03 Sportscasting and Reporting 1.5
- R-TV 04 Broadcast News Field Reporting 3.0
- R-TV 05 Radio-TV Newswriting 3.0
- R-TV 06 Broadcast Traffic Reporting 1.5
- R-TV 08 KSAX Radio Studio Operations 2.0 CSU
- R-TV 17 Internet Radio and Podcasting 3.0
- R-TV 26 Legal Issues in Entertainment Law 3.0
- R-TV 27 Radio Drama 3.0
- R-TV 31 History of Radio DJs 3.0
- R-TV 33 Radio Show Producer Techniques 3.0

Total Units 36.0 - 37.0

Radio Broadcasting: On the Air

Commercial and Entertainment Arts

Major 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.

Requirements for the Major

Required courses:

- R-TV 01 Introduction to Broadcasting 3.0 CSU
- R-TV 02 On-Air Personality Development 3.0 CSU
- R-TV 05 Radio-TV Newswriting 3.0
- R-TV 07A Beginning Commercial Voice-Overs 3.0
- R-TV 11A Beginning Radio Production 3.0 CSU
- R-TV 11B Advanced Radio Production 3.0 CSU
- R-TV 15 Broadcast Business Practices 3.0
- R-TV 16 Broadcast Career Preparation 3.0
- R-TV 97A Radio/Entertainment Industry Seminar 1.0
- R-TV 97B Radio/Entertainment Industry Internship 1.0
- R-TV 97C KSAX Radio/Internet Radio 1.0 – 2.0 Internship

PLUS

Select nine (9) units from:

- R-TV 03 Sportscasting and Reporting 1.5
- R-TV 04 Broadcast News Field Reporting 3.0
- R-TV 06 Broadcast Traffic Reporting 1.5
- R-TV 07B Advanced Commercial Voice-Overs 3.0
- R-TV 08 KSAX Radio Studio Operations 2.0 CSU
Exposed to odorous chemicals and specimens
Requires decisions/actions critical to patient safety
Regularly exposed to the risk of blood borne diseases
Handle emergency or crisis situations
Subject to hazards of flammable, explosive gases
Exposed to hazardous agents, body fluids and wastes
May be exposed to infectious and contagious disease,
Contact with patients having different religious,
Subject to burns and cuts
Subject to many interruptions

Programs Leading to an Associates Degree

Radiologic Technology
Radiologic Technology Department
Major S1206

The course of study in Radiologic Technology offered at Mt. San Antonio College and its affiliated hospitals will prepare students to be certified radiologic technologists. Students will gain knowledge and understanding of the diagnostic uses of x-ray, as well as the technical skills to use x-ray equipment in both laboratory and clinical settings. The courses are developed to enable students to operate x-ray equipment, assist in the diagnosis of disease, and to observe proper medical ethics. Students will learn the nature of radiation, the principles of electricity, the structure of x-ray machines, and the operation of a clinical x-ray department.

To remain in the program, students must maintain a grade of "C" or better in all courses.

Upon completion of the Associate of Science Degree in Radiologic Technology, graduates are eligible to apply for the registry examination through the American Registry of Radiologic Technologists. This course is optional.

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

a) Applicant must be 18 years of age upon entrance into the program.
b) High school graduate or equivalent.
c) Possess a valid Social Security Card. This is a licensed profession, and a valid Social Security Number is required to obtain state certification and national licensure.
d) File a college application and be accepted as a student at Mt. San Antonio College.
e) Take the college placement examination which is used as an indicator. If you have already taken a college placement examination within the past two years at another school, arrange to have your scores forwarded to the Technology and Health Division Office. If you were tested at Mt. San Antonio College, the Technology and Health Division Office will obtain the test scores as long as an "Application for Admission" is on file with the Admissions and Records Office. (Arrangement should be made with the Service Center to schedule a date and time to take the college placement examination if required. The Assessment Center is open Monday through Friday. You may contact them at (909)594-5611 ext. 4265.)
f) Complete the following prerequisite courses with a minimum grade of "C" in each course.
   1. General High School Algebra (one year) or Introductory College Algebra (one semester) or MATH 51 (Elementary Algebra, or equivalent);
   2. General High School Chemistry (one year) or Introductory College Chemistry (one semester) or CHEM 10 - Chemistry for Allied Health. Students must complete prerequisite courses before applying to the program.
g) After completion of the prerequisites, submit an application for the Radiologic Technology Program to the Technology and Health Division Office (909) 594-5611, ext. 4750. All applications are dated upon receipt in the Technology and Health Division Office. A program begins each summer intersession.
h) Forward two official transcripts of all coursework completed (high school, and other than Mt. San Antonio College courses). One transcript must be sent to Technology and Health Division Office and the other to Admissions and Records. 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
   - 5611, ext. 4750. All applications are dated upon receipt in the Technology and Health Division Office. A program begins each summer intersession.
i) For students who possess a college degree, the English placement test is not required, however, it will be necessary for a student to obtain two official copies of the college transcript showing the degree issued. One official transcript must be sent to Technology and Health Division Office and the other to Admissions and Records. If the courses were taken and/or the degree obtained at Mt. San Antonio College, it is not necessary to request transcripts. Request the transcript for the Division Office be addressed as follows:
   - Mt. San Antonio College Technology and Health Division
   - Radiologic Technology Program
   - 1100 North Grand Avenue
   - Walnut CA 91789-1299

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

Acceptance Requirements:
A mandatory orientation meeting with the Radiologic Technology Department will be held during the spring semester. You will be contacted with date and time of orientation once you have been accepted.

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

Real Estate
Business Administration Department
Major S0512
This program prepares students for employment following graduation. Students wishing to transfer to a Bachelor’s degree program as Business Administration should consult a counselor or an advisor to discuss transferrability of courses. The requirements for a degree in real estate include the eight courses needed prior to applying to take the Real Estate Broker License Exam as well as additional classes designed to strengthen the skills needed to succeed in a career in real estate.

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

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

PLUS
Group B
Select zero (0), one (1) or two (2) units from:
BUSA 7 Principles of Accounting - Financial 5.0 CSU,UC
BUSA 11 Fundamentals of Accounting 3.0
BUSA 72 Bookkeeping - Accounting 5.0
BUSL 18 Business Law 3.0 CSU,UC
BUSM 20 Principles of Business 3.0 CSU,UC
BUSM 60 Human Relations in Business 3.0 CSU
BUSO 5 Business English 3.0
BUSO 25 Business Communications 3.0 CSU
BUSO 26 Oral Communications for Business 3.0
BUSS 35 Professional Selling 3.0 CSU
BUSS 36 Principles of Marketing 3.0 CSU
PSYC 1A Introduction to Psychology 3.0 CSU,UC

Total Units 34.5 - 44.5

Real Estate Appraisal
Business Administration Department
Major S0513
This program prepares students for employment following graduation. Students wishing to transfer to a Bachelor’s degree program as Business Administration should consult with an advisor to discuss transferrability of courses.

Requirements for the Major
Required courses:
BUSR 81 Appraisal: Principles and Procedures 3.5
BUSR 82 Uniform Standards of Professional Appraisal Practice 1.0
BUSR 83 Residential Appraisal 3.5
BUSR 84 Residential Appraisal: Case Studies 2.5

PLUS
Select seven (7) courses from:
BUSA 11 Fundamentals of Accounting 3.0
BUSR 50 Real Estate Principles 3.0 CSU
BUSR 51 Legal Aspects of Real Estate 3.0
BUSR 53 Real Estate Finance 3.0
BUSR 55 Real Estate Economics 3.0
BUSR 57 Income Tax Aspects of Real Estate Investments 3.0
BUSR 59 Real Estate Property Management 3.0
BUSR 76 Escrow Procedures I 3.0
CISB 15 Microcomputer Applications 4.0 CSU,UC
INS 70 Elements of Construction 3.0 CSU

Total Units 31.5 - 32.5

Registered Veterinary Technology
Agricultural Sciences Department
Major S0105
The program of courses in Agriculture is designed to enable students to prepare for a career in this essential and diverse profession. The department offers a comprehensive agricultural sciences program and is unique in that most courses provide hands-on experience designed to give the student a combination of practical skills and technical knowledge. Students who intend to transfer should check the lower division requirements in the catalog of the college or university which they plan to attend and also the semester and year in which courses are offered.

The following programs list all courses needed to satisfy major requirements. It is recommended that all students consult with the department chairperson or faculty advisor to file an educational plan. Students must file an educational plan with the Director of the Registered Veterinary Technology Program during the first year of study.

These programs are intended to prepare students for employment following graduation. Students desiring a Bachelor’s Degree (transfer program) should consult with the department chairperson, counselor or advisor to discuss transferrability of courses.

This degree is designed to prepare students for careers as Registered Veterinary Technicians who will work under the supervision of licensed private organizations including veterinary hospitals, research vivariums, animal shelters, and other animal care agencies. Students who satisfactorily complete the requirements of this program are eligible to take the State of California Certifying Examination for Registered Veterinary Technicians.

Students wishing to be admitted to the Registered Veterinary Technology program must meet with the Director of the Registered Veterinary Technology program at least two weeks prior to the beginning of the semester in which enrollment shall begin.

Requirements for the Major
Required courses 1st year:
AGAN 1 Animal Science 3.0 CSU,UC
AGAN 2 Animal Nutrition 3.0 CSU,UC
AGAN 51 Animal Handling and Restraint 3.0 CSU
AGAN 94 Animal Breeding 3.0
AGHE 54 Veterinary Office Procedures 3.0
AGLI 96 Animal Sanitation and Disease Control 3.0 CSU
Required courses 2nd year:

Respiratory Therapy

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

PICK SIX UNITS FROM:

Respiratory Therapy Department

Major 5120S

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

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

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

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

Requirements for the Major

Required courses:

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

Total Units 58.0

Special Information

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

All students entering the program must submit an educational plan showing the major course requirements with the general education requirements for the degree. To remain in the program, students must maintain a “C” or better grade in all courses.

Upon completion of the Respiratory Therapy requirements, the student is given a certificate documenting completion. This certification will permit the student to sit for all National Board for Respiratory Care (NBRC), Incorporated, examinations.

Entrance Requirements:

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

1) Applicant must be at least 18 years of age upon entrance into the program and must be a high school graduate or equivalent. Please provide copy of diploma as proof of high school completion.
2) File a college application and be accepted as a student at Mt. San Antonio College.
3) Applicant must take the college placement exams before taking any of the prerequisite or respiratory therapy courses.

NOTE: Testing is administered by the Assessment Center located in the Student Services Center, Building 9B. You may contact them at (909) 594-5611, ext. 4265, to set up an appointment.

If you have taken English and math at another college, please provide college transcripts.

For students who possess a college degree, the college placement examination is not required. However, it will be necessary for the applicant to obtain two official copies of the college transcript showing the degree issued. One official transcript must be sent to the Respiratory Therapy Program Office and the other to the Admissions Office. If the degree was obtained at Mt. SAC, it is not necessary to request transcripts.

Transcripts should be addressed as follows:

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

4) Submit an application for the Respiratory Therapy Program to the Technology and Health Division Office (Bldg. 28A, Room 1012) (909) 594-5611, ext. 4750.

All applications are dated upon receipt. It is highly recommended that students complete their general education requirements prior to entering the program.

Foreign Transcripts:

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

Selection Procedure:

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

A.S. Degree Requirements

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

Other Requirements:

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

Physical Demands:

- Perform prolonged, extensive, or considerable standing/walking, lifting, positioning, pushing, and/or transferring patients
Programs Leading to an Associates Degree

- Possess the ability to perform fine motor movements with hands and fingers
- Possess the ability for extremely heavy effort (lift and carry at least 50 pounds or more)
- Perform considerable reaching, stooping, bending, kneeling, and crouching

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

Exposure to:
- Hazards of flammable, explosive gases
- Odorous chemicals and specimens
- Products containing latex
- Hazardous agents, body fluids and wastes
- Exposed to odorous chemicals and specimens
- Exposed to products containing latex

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

Sign Language/Interpreting
Sign Language Department
Major S0801

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

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

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

Completing the certificate in Sign Language/Interpreting does not make one a "Certified Interpreter"; however, graduates of this program are encouraged to apply for National Interpreting Certification (NIC) through the Registry of Interpreters for the Deaf (RID) at www.rid.org. Students who complete the required courses listed below and who also complete the graduation requirements of Mt. San Antonio College will be awarded the Associate of Science Degree in Sign Language/Interpreting.

Requirements for the Major

Required courses:
- SIGN 105 American Sign Language 5 4.0
- SIGN 108 Fingerspelling 2.0
- SIGN 201 Deaf Perspectives 3.0
- SIGN 202 American Deaf Culture 3.0 CSU
- SIGN 210 American Sign Language Structure 3.0 CSU
- SIGN 220 Translation: American Sign Language/English 3.0 CSU
- SIGN 222 Principles of Interpreting 3.0 CSU
- SIGN 225 Ethical Decision Making for Interpreters 2.0
- SIGN 227 Cognitive Processing for Interpreters 4.0
- SIGN 231 Interpreting 4.0
- SIGN 232 Advanced Interpreting 4.0
- SIGN 239 Practicum 1.0

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

Total Units 40.0 - 43.0

Small Business Management
Accounting and Management Department
Major S0508

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

Requirements for the Major

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

Total Units 30.0

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

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

Television Production
Commercial and Entertainment Arts
Major S0602

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

Requirements for the Major

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

PLUS
Select twelve (12) units from:
- R-TV 05 Radio-TV Newswriting 3.0
- R-TV 18 Writing for Television/Film 3.0 CSU
- R-TV 20 Television News Production 3.0
- R-TV 21 Remote Television Production and Engineering 3.5
- R-TV 22 Editing for Film and Television 3.0

Recommended Electives:
- ANIM 115 Storyboarding
- R-TV 26 Current Issues in Entertainment Law
- THTR 17 Acting for Television
Welding
Air Conditioning, Water
& Welding Technologies
Major S0919

This program is designed to prepare the student for employment in the broad field of welding. It leads to occupations in manufacturing and repair and helps prepare the student for positions in supervision. Courses in the welding curriculum prepare students for welding certification. The college is a testing agency for the City of Los Angeles and is authorized to administer the performance test for the Structural Welding Certificate. There is a $50 charge for students and $60 for non-students to take this test. Topics of the written portion of the test which is administered by the city are reviewed in various welding courses offered by the college.

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

Requirements for the Major

<table>
<thead>
<tr>
<th>Required courses:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>WELD 40</td>
<td>Introduction to Welding 2.0 CSU</td>
</tr>
<tr>
<td>WELD 50</td>
<td>Oxyacetylene Welding 2.0</td>
</tr>
<tr>
<td>WELD 51</td>
<td>Basic Electric Arc Welding 2.0</td>
</tr>
<tr>
<td>WELD 53A</td>
<td>Welding Metallurgy 3.0 CSU</td>
</tr>
<tr>
<td>WELD 70A</td>
<td>Beginning Arc Welding 3.0</td>
</tr>
<tr>
<td>WELD 70B</td>
<td>Intermediate Arc Welding 3.0</td>
</tr>
<tr>
<td>WELD 70C</td>
<td>Certification for Welders 3.0</td>
</tr>
<tr>
<td>WELD 80</td>
<td>Fabrication and Construction Welding 3.0</td>
</tr>
</tbody>
</table>

Total Units: 21.0

Recommended Electives:

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

ASSOCIATE OF ARTS DEGREES (A.A.)

Liberal Arts and Sciences with area of emphasis in one of the following:

Business; Communication; Fine Arts; Humanities; Information Technology; Kinesiology and Wellness; Language Arts; Mathematics; Music; Natural Sciences; and Social & Behavioral Sciences

Mt. San Antonio College’s Associate of Arts degrees are designed to meet the needs of students interested in graduating with a two-year college degree by studying in a specific area of emphasis. These students are not intending to pursue a specific occupational major, nor are they necessarily planning to transfer. However, careful educational planning with a counselor or an educational advisor will help ensure that, if a student subsequently decides to transfer to a four-year college or university, he or she would have a solid foundation in the transfer process. Transfer students may also become eligible for a Certificate of Achievement in CSU General Education Breadth or Intersegmental General Education Transfer Curriculum (IGETC) by completing requirements shown on pages 102-110 of this catalog.

To qualify for an Associate of Arts degree, students must complete all the graduation requirements as listed on page 64 of this catalog. In addition, students choose one of eleven “areas of emphasis” and complete the appropriate requirements as shown in this section. Courses listed within an area of emphasis may also be used to satisfy general education requirements, with additional elective courses chosen by the student to complete the 60-unit degree requirement. The printed degree and transcript notation will read “Associate of Arts in Liberal Arts and Sciences, Emphasis in (specific area).”

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

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

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

Area of Emphasis Requirements

(choose one)

Associate of Arts Degree in Liberal Arts and Sciences

Emphasis in Business

Degree A8981

An emphasis in Business provides the student with an understanding of business and its role in society. Students will have knowledge of various business functions and economic analysis. Upon completion of this degree students will be prepared for an entry level job in the business world.

Core/Required Courses

BUSC 1A Principles of Economics 3.0 - Macroeconomics
BUSC 1B Principles of Economics 3.0 - Microeconomics
BUSC 1BH Principles of Economics 3.0 - Microeconomics - Honors
CSB 15 Microcomputer Applications 4.0 - Office Computer Applications
COMP 12 or Computer Information Systems 4.0
CSB 11 or Computer Information Systems 3.5

PLUS

Choose one (1) of the following tracks:

Performance Studies Track

SPCH 3 Voice and Diction 3.0
SPCH 4 Oral Interpretation of Literature 3.0
SPCH 5 Readers Theater 3.0
SPCH 1B Intermediate Public Speaking 3.0 (if not used as a core class)

or

Performance Studies Track

SPCH 1A Public Speaking 3.0
SPCH 26 Inter personal Communication 3.0
SPCH 26H or Interpersonal Communication - Honors
JOUR 100 Mass Media and Society 3.0
SPCH 1B Intermediate Public Speaking 3.0
SPCH 20 or Argumentation and Debate 3.0
SPCH 20H or Argumentation and Debate - Honors

or

Intercultural Track

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

Total Units 18.0

Associate of Arts Degree in Liberal Arts and Sciences

Emphasis in Fine Arts

Degree A8983

An emphasis in Fine Arts provides the student with an understanding of the practices and theories of traditional and contemporary two and three-dimensional studio arts and an introduction to the history of western art. In addition to the foundational courses, students select studio electives.

Core/Required Courses

ARTD 15A Drawing: Beginning 3.0
ARTD 17A Drawing: Life 3.0
ARTD 20 Design: Two Dimensional 3.0
ARTD 21 Design: Color and Composition 3.0
ARTS 22 Design: Three Dimensional 3.0
ARTD 25A Painting: Beginning 3.0
AHIS 4 History of Western Art: Prehistoric Through Gothic 3.0

Total Units 18.0
Music:
Select a total of 18 units choosing courses from at least 5 of the following 7 categories:

Music:
MUS 11A Music Literature Survey 3.0
MUS 11B Music Literature Survey 3.0
MUS 12 History of Jazz 3.0
MUS 13 Introduction to Music Appreciation 3.0
MUS 14A World Music 3.0
MUS 14B American Folk Music 3.0
MUS 15 Rock Music History and Appreciation 3.0

Art History:
AHIS 3 History of Women and Gender in Art 3.0
AHIS 4 History of Western Art: Prehistoric Through Gothic 3.0
AHIS 4H History of Western Art: Renaissance Through Modern 3.0
AHIS 5 History of Western Art: Renaissance Through Modern - Honors 3.0
AHIS 5H History of Western Art: Renaissance Through Modern - Honors 3.0

Recommended two studio electives (6 units selected from the following):
ANIM 101 Drawing - Gesture and Figure 3.0
ARTB 14 Basic Studio Arts 3.0
ARTC 165 Illustration 3.0
ARTC 70 Computer Graphics: Introduction 3.0
ARTD 16 Drawing: Perspective 3.0
ARTD 15B Drawing: Beginning 3.0
ARTD 17B Drawing: Life 3.0
ARTD 27 Painting: Watercolor 3.0
ARTD 43 Printmaking: Silk-screen and Intaglio 3.0
ARTD 44 Printmaking: Relief and Lithography 3.0
ARTG 20 Art, Artists and Society 3.0
ARTG 21A Introduction to Exhibition Production 3.0
ARTS 30A Ceramics: Beginning 3.0
ARTS 33 Ceramics: Hand Construction 3.0
ARTS 40A Sculpture: Beginning 3.0
ARTS 41A Sculpture: Life 3.0
PHOT 10 Basic Digital and Film Photography 3.0
MUS 12 History of Jazz 3.0
MUS 13 Introduction to Music Appreciation 3.0
MUS 14A World Music 3.0
MUS 14B American Folk Music 3.0
MUS 15 Rock Music History and Appreciation 3.0

Programs Leading to an Associates Degree

Associate of Arts Degree in Liberal Arts and Sciences

Emphasis in Humanities

An emphasis in Humanities provides the student with an understanding of the interrelationships between art, religion, history, music, literature, and the dramatic arts, and philosophical and political thought. This emphasis also strengthens the understanding of other cultures through the study of a foreign language.

Select a total of 18 units choosing courses from at least 5 of the following 7 categories:

Music:
MUS 11A Music Literature Survey 3.0
MUS 11B Music Literature Survey 3.0
MUS 12 History of Jazz 3.0
MUS 13 Introduction to Music Appreciation 3.0
MUS 14A World Music 3.0
MUS 14B American Folk Music 3.0
MUS 15 Rock Music History and Appreciation 3.0

Arts:
AHIS 3 History of Women and Gender in Art 3.0
AHIS 4 History of Western Art: Prehistoric Through Gothic 3.0
AHIS 4H History of Western Art: Renaissance Through Modern 3.0
AHIS 5 History of Western Art: Renaissance Through Modern - Honors 3.0
AHIS 5H History of Western Art: Renaissance Through Modern - Honors 3.0

Recommended electives:
HUMA 1 The Humanities 3.0
STDY 100 Student Achievement and Fundamentals of Learning 3.0

Associate of Arts Degree in Liberal Arts and Sciences

Emphasis in Information Technology

Degree A8985

An emphasis in Information Technology provides the student with an understanding of software development, database technologies, operating systems, networks, and network security.

Information Technology Basics (3.5 - 4 units from the following):
CISB 11 Computer Information Systems 3.5
CISB 15 Microcomputer Applications 4.0
COMP 12 Office Computer Applications 4.0

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

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

### CISD 31 Database Management 4.0
### CISD 21 Windows Operating System 4.0
### CISD 31 Linux Operating System 4.0
### CSS 13 Principles of Information 4.0
### Total Units 19.5 – 20.0

### Recommended Electives:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CISM 11 Systems Analysis and Design</td>
<td>3.5</td>
</tr>
<tr>
<td>COMP 20 Word for the Business Professional</td>
<td>4.0</td>
</tr>
<tr>
<td>COMP 50 Desktop Presentations using PowerPoint</td>
<td>4.0</td>
</tr>
<tr>
<td>BUSA 7 Principles of Accounting - Financial</td>
<td>5.0</td>
</tr>
<tr>
<td>BUSM 20 Principles of Business</td>
<td>3.0</td>
</tr>
<tr>
<td>BUSM 60 Human Relations in Business</td>
<td>3.0</td>
</tr>
<tr>
<td>BUSO 25 Business Communications</td>
<td>3.0</td>
</tr>
<tr>
<td>BUSS 36 Principles of Marketing</td>
<td>3.0</td>
</tr>
<tr>
<td>SL 2 Service Learning in Networking</td>
<td>1.0</td>
</tr>
<tr>
<td>SPCH 26 Interpersonal Communication</td>
<td>3.0</td>
</tr>
<tr>
<td>STDV 100 Student Achievement and Fundamentals of Learning</td>
<td>3.0</td>
</tr>
</tbody>
</table>

### Associate of Arts Degree in Liberal Arts and Sciences

**Emphasis in Kinesiology and Wellness Degree A8986**

An emphasis in Kinesiology and Wellness provides the student with an understanding of physical education, health promotion, and the mechanics of human body movement. In addition to the foundational physical education and movement courses, students select courses from a scientific and nutrition and a behavioral development and diversity cluster.

**Cluster 1: Physical Education and Movement**

(minimum of 6 units selected from the following):

- PE 3 First Aid and CPR 3.0

**(minimum of 3 units selected from the following):**

- PSYC 1A Introduction to Psychology 3.0
- PSYC 26 Psychology of Sexuality 3.0
- PSYC 3 Introduction to Research Methods in Psychology 4.0

**Cluster 2: Scientific and Nutrition Background**

(4 units selected from the following):

- CHEM 10 Chemistry for Allied Health Majors 4.0
- CHEM 40 Introduction to General Chemistry 4.0
- MICR 1 Principles of Microbiology 5.0
- PHYS 2AG General Physics 4.0
- PSYC 1B Biological Psychology 3.0
- BIOL 1 General Biology 4.0
- BIOL 5 Contemporary Health Issues 3.0
- BIOL 13 Human Reproduction, Development and Aging 3.0
- NF 10 Nutrition for Personal Health and Wellness 3.0
- NF 25 Essentials of Nutrition 3.0

**Cluster 3: Behavioral Development and Diversity**

(minimum of 3 units selected from the following):

- PSYC 1A Introduction to Psychology 3.0
- PSYC 26 Psychology of Sexuality 3.0
- PSYC 3 Introduction to Research Methods in Psychology 4.0

**Cluster 4: Education and Movement**

(minimum of 6 units selected from the following):

- PE 17 Introduction to Physical Education 3.0
- PE 19 Introduction to Care 3.0
- PE 44 Theory of Coaching 3.0
- PE 33 First Aid and CPR 3.0
- PE 31 Introduction to Dance 3.0
- PE 42 Theory of Coaching 3.0
- PE 31 Introduction to Dance 3.0
- PE 31 History and Appreciation of Dance 3.0

**Plus additional units taken from any courses in Clusters 1-3 above for a total of at least 18 units.**

**Total Units 18.0**

### Strongly Recommended:

Students who are getting the AA degree with an emphasis in Kinesiology and Wellness are encouraged to take a minimum of three activity courses in at least three different PE/DANCE areas: PE-A (Aquatics); PE-F (Fitness); PE-I (Individual Sports); PE-S (Team Sports); DNCE (Dance).

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### Associate of Arts Degree in Language Arts

**Emphasis in Language Arts Degree A8987**

An emphasis in Language Arts provides the student with an understanding of the acquisition of language with a focus on reading, writing, listening, and speaking within a diverse environment. In addition to the foundational language acquisition courses, students select personal options that will strengthen their individual interests and goals within Language Arts.

**Language Acquisition**

(minimum 9 units selected from the following):

- ENG 1C Critical Thinking and Writing 4.0
- PHIL 9 Critical Thinking and Logical Writing 3.0
- ENGL 31 Language Acquisition 3.0
- READ 100 Analysis and Critical Reading 3.0
- READ 110 Reading Tutoring for Elementary 3.0

**Total Units 19.5 – 20.0**

### Recommended Electives:

- 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 5 Advanced Spanish 4.0
- SPAN 6 Continuing Advanced Spanish 4.0
- SPAN 11 Spanish for the Spanish Speaking 4.0
- STDV 12 Continuing Spanish 4.0
- STDV 25 Spanish Language and Logic 3.0
- STDV 33 Spanish for the Spanish Speaking 4.0
- STDV 54 Advanced Conversational Spanish 3.0
- ITAL 1 Elementary Italian 4.0
- ITAL 2 Continuing Elementary Italian 4.0
- ITAL 3 Intermediate Italian 4.0
- ITAL 4 Continuing Intermediate Italian 4.0
- ITAL 5 Advanced Italian 4.0
- ITAL 6 Continuing Advanced Italian 4.0
- ITAL 52 Conversational Italian 3.0
- ITAL 53 Continuing Conversational Italian 3.0
- ITAL 54 Advanced Conversational Italian 3.0
- GERMAN 1 Elementary German 4.0
- GERMAN 2 Continuing Elementary German 4.0
- GERMAN 3 Intermediate German 4.0
- CHINESE 1 Elementary Chinese 4.0
- CHINESE 2 Continuing Elementary Chinese 4.0
- CHINESE 3 Intermediate Chinese 4.0
- CHINESE 4 Continuing Intermediate Chinese 4.0
- JAPAN 1 Elementary Japanese 4.0
- JAPAN 2 Continuing Elementary Japanese 4.0
- JAPAN 3 Intermediate Japanese 4.0

**Total Units 19.5 – 20.0**

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### Associate of Arts Degree in Social Sciences

**Emphasis in Social Sciences Degree A8988**

An emphasis in Social Sciences provides the student with an understanding of the acquisition of language with a focus on reading, writing, listening, and speaking within a diverse environment. In addition to the foundational language acquisition courses, students select personal options that will strengthen their individual interests and goals within Social Sciences.

**Language Acquisition**

(minimum 9 units selected from the following):

- ENG 1C Critical Thinking and Writing 4.0
- PHIL 9 Critical Thinking and Logical Writing 3.0
- ENGL 31 Language Acquisition 3.0
- READ 100 Analysis and Critical Reading 3.0
- READ 110 Reading Tutoring for Elementary 3.0

**Total Units 19.5 – 20.0**

### Recommended Electives:

- 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 5 Advanced Spanish 4.0
- SPAN 6 Continuing Advanced Spanish 4.0
- SPAN 11 Spanish for the Spanish Speaking 4.0
- STDV 12 Continuing Spanish 4.0
- STDV 25 Spanish Language and Logic 3.0
- STDV 33 Spanish for the Spanish Speaking 4.0
- STDV 54 Advanced Conversational Spanish 3.0
- ITAL 1 Elementary Italian 4.0
- ITAL 2 Continuing Elementary Italian 4.0
- ITAL 3 Intermediate Italian 4.0
- ITAL 4 Continuing Intermediate Italian 4.0
- ITAL 5 Advanced Italian 4.0
- ITAL 6 Continuing Advanced Italian 4.0
- ITAL 52 Conversational Italian 3.0
- ITAL 53 Continuing Conversational Italian 3.0
- ITAL 54 Advanced Conversational Italian 3.0
- GERMAN 1 Elementary German 4.0
- GERMAN 2 Continuing Elementary German 4.0
- GERMAN 3 Intermediate German 4.0
- CHINESE 1 Elementary Chinese 4.0
- CHINESE 2 Continuing Elementary Chinese 4.0
- CHINESE 3 Intermediate Chinese 4.0
- CHINESE 4 Continuing Intermediate Chinese 4.0
- JAPAN 1 Elementary Japanese 4.0
- JAPAN 2 Continuing Elementary Japanese 4.0
- JAPAN 3 Intermediate Japanese 4.0

**Total Units 19.5 – 20.0**
Associate of Arts Degree in Liberal Arts and Sciences
Emphasis in Mathematics
Degree A8989

An emphasis in Mathematics provides the student with an understanding of college level mathematics. In addition to the foundational calculus courses, students may select from computer science programming options.

Core/Required Courses
(minimum 18 units selected from the following at most two CSCI courses):

- MATH 130 College Algebra 3.0
- MATH 140 Calculus for Business 4.0
- MATH 150 Trigonometry 3.0
- MATH 160 Precalculus Mathematics 4.0
- MATH 180 Calculus and Analytic Geometry 4.0
- MATH 181 Calculus and Analytic Geometry 5.0
- MATH 280 Calculus and Analytic Geometry 4.0
- MATH 285 Linear Algebra 5.0
- CSCI 110 Fundamentals of Computer Science 3.5
- CSCI 140 C++ Language and Object Development 4.0
- CSCI 145 Java Language and Object Oriented Programming 4.0

Recommended Electives:

- MATH 100 Survey of College Mathematics 3.0
- MATH 110 Elementary Statistics 3.0
- MATH 110H Elementary Statistics - Honors 3.0
- MATH 245 A Transition to Advanced Mathematics 3.0
- MATH 120 Finite Mathematics 3.0
- CHEM 50 General Chemistry I 5.0
- CHEM 50H General Chemistry I - Honors 5.0
- CHEM 51 General Chemistry II 5.0
- PHYS 4A Engineering Physics 5.0
- PHYS 4B Engineering Physics 5.0
- PHYS 4C Engineering Physics 5.0

Total Units 18.0 for Area of Emphasis

Associate of Arts Degree 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.

Core/Required Courses (15 units)

- MUS 2 Music Theory 3.0
- MUS 3A Harmony 3.0
- MUS 5A Musicianship 1.0
- MUS 5B Musicianship 1.0
- MUS 11A Music Literature Survey 3.0
- MUS 11B Conducting 1.0
- MUS 17A Elementary Class Piano 1.0
- MUS 17B Intermediate Class Piano 1.0
- MUS 18 Advanced Class Piano 1.0

Performance Ensemble
(1-3 units selected from the following):

- MUS 27 Chamber Winds 2.0
- MUS 30 Collegiate Chorale 1.0
- MUS 31 Concert Choir 2.0
- MUS 32 Masterworks Chorale 1.0
- MUS 34 Women’s Vocal Ensemble 2.0
- MUS 36 Concert and Community Band 2.0
- MUS 38 Ensemble 1.0
- MUS 39 Laboratory Band 2.0
- MUS 40 Pep Band 1.0
- MUS 41 Women’s Vocal Ensemble 2.0
- MUS 42 Wind Ensemble 3.0

Total Units 18.0 - 20.0 for Area of Emphasis

Associate of Arts Degree in Natural Sciences
Degree A8998

An emphasis in Natural Sciences provides the student with an understanding of living and non-living systems and promotes an appreciation of the methodologies and tools of science. Students may select courses that focus on a specific major and then select complementary courses to strengthen their selected focus or they may select courses that strengthen and broaden their overall understanding of the Natural Sciences.

Select a minimum of 18 units from the following:

- BIOL 2 Plant & Animal Biology 4.0
- BIOL 4 Biology for Majors 4.0
- BIOL 4H Biology for Majors - Honors 4.0
- BIOL 8 Cell and Molecular Biology 4.0
- BION 3 Plant Structures, Functions and Diversity 5.0
- CHEM 5 Principles of Microbiology 5.0
- CHEM 22 Microbiology 4.0
- CHEM 50 General Chemistry 5.0
- CHEM 50H General Chemistry - Honors 5.0
- CHEM 51 General Chemistry II 5.0
- CHEM 80 Organic Chemistry 5.0
- CHEM 81 Organic Chemistry 5.0
- CHEM 60 Quantitative Chemical Analysis 5.0
- GEOG 1 Physical Geology 4.0
- GEOG 2 Historical Geology 4.0
- ENGR 29A General Physics 4.0
- ENGR 29B General Physics 4.0
- PHYS 4A Engineering Physics 5.0
- PHYS 4B Engineering Physics 5.0
- PHYS 4C Engineering Physics 5.0
- ENGR 40 Statics 3.0
- ENGR 41 Dynamics 3.0

Total Units 18.0 for Area of Emphasis
<table>
<thead>
<tr>
<th>Cluster</th>
<th>Elective Courses</th>
</tr>
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</table>
| Cluster 1: Statistics Background | MATH 110 Elementary Statistics 3.0  
MATH 110H Elementary Statistics - Honors 3.0  
PSYC 10 Statistics 4.0 |
| Cluster 2: Cultural & Gender Diversity | ANTH 30 The Native American 3.0  
ANTH 5 Principles of Cultural Anthropology 3.0  
ANTH 22A General Cultural Anthropology 3.0  
JOUR 100 Mass Media and Society 3.0  
JOUR 107 Mass Media and Society 3.0  
PSCI 21 Politics of the Mexican American 3.0  
PSCI 25 African American Politics 3.0  
PSCI 7 Intercultural Communication 3.0  
HIST 36 Women in American History 3.0  
 or  
HIST 36H Beyond the Stereotypes 3.0  
BIO 15 Human Sexuality 3.0  
 or  
BIO 15A Human Sexuality - Honors 3.0  
LIT 33 Images of Women in Literature 3.0  
PSYC 25 The Psychology of Women 3.0  
PSYC 26 Psychology of Sexuality 3.0  
SOC 10 Introduction to Criminology 3.0  
SOC 14 Marriage and the Family 3.0  
SOC 20 Sociology of Ethnic Relations 3.0  
 or  
SOC 20H Sociology of Ethnic Relations - Honors |
| Cluster 3: Development of the Person | BIO 5 Contemporary Health Issues 3.0  
BIO 13 Human Reproduction, Development and Aging 3.0  
CHLD 1 Child, Family and Community 3.0  
CHLD 10 Child Growth and Development 3.0  
 or  
CHLD 10H Child Growth and Development - Honors 3.0  
PSYC 14 Developmental Psychology 3.0  
SOC 2 Sociology 3.0  
 or  
SOC 2H Sociology - Honors 3.0  
SOC 4 Introduction to Gerontology 3.0  
SOC 15 Child Development 3.0  
Cluster 4: Biology as it Relates to Behavior or Society | ANTH 1 Biological Anthropology 3.0  
BIOL 6 Humans and the Environment 3.0  
BIOL 17 Neurobiology and Behavior 3.0  
PSYC 18 Biological Psychology 3.0  
 or  
PSYC 18H Biological Psychology - Honors 3.0  

Total Units 18.0

Students who decide to major in the Social and Behavioral Sciences are strongly encouraged to gain a strong research methods background by taking PSYC 3 Introduction to Research Methods in Psychology 4.0 or LIBR 1 Information Resources and Research Methods 3.0.

Other recommended electives include:

- ANTH 3 Archaeology 3.0  
- BUSM 60 Human Relations in Business 3.0  
- FCS 41 Life Management 3.0  
- COUN 5 Career/Life Planning 3.0  
- COUN 51 Career Planning 1.0  
- CHLD 1 Child, Family and Community 3.0  
- CHLD 73 Infant/Toddler Care and Development 3.0  
- CHLD 85 Infants At Risk 3.0  
- LIT 15 Introduction to Cinema 3.0  
- LIT 20 African American Literature 3.0  
- LIT 25 Contemporary Mexican American Literature 3.0  
- LIT 3 Multicultural American Literature 3.0  
- PSYC 17 Introduction to Human Services 3.0  
- PSYC 19 Abnormal Psychology 3.0  
- PSYC 33 Psychology for Effective Living 3.0  
- SPCH 26 Interpersonal Communication 3.0  
- SPCH 26H Interpersonal Communication - Honors 3.0  
- SL 1 Service Learning/Seminar for Health Occupations 6.0  
- SL 2 Linked Service Learning 1.0  
- SL 3 Service Learning/Seminar in Community Involvement 3.0  
- SL 4 Service Learning and Community 1.0
## Programs of Study Leading to Transfer

Mt. San Antonio College offers lower division transfer courses to meet the requirements for most baccalaureate majors offered by accredited colleges and universities in the United States. Students should meet with a counselor or an educational advisor in the Student Services Center for information about transfer courses in their major. It is advised that the student visit the Counseling Center in advance of the next registration period.

Students should develop an educational plan by the end of their second semester. Students with declared majors are encouraged to consult with an educational advisor or a counselor in the Counseling Center. Students who are undecided are encouraged to see a counselor or enroll in COUN 5 – Career/Life Planning.

Listed below are majors that may be offered at various campuses of the California State University (CSU) and/or the University of California (UC). Although a serious attempt was made to make this list a comprehensive one, it is not an exact list of every major available. To find out exactly what major is available at any particular university, please visit the Counseling Center. All of the CSU and UC catalogs are available in the Career and Transfer Center for your use. If you are undecided about which major is right for you, please make an appointment with a counselor in the Counseling Center, Ext. 4380.

Students who are preparing to transfer, especially to a UC campus, are strongly encouraged to balance their studies by taking both general education courses and lower division (freshman/sophomore) major courses. Completing only general education courses, especially for high unit majors, such as business administration, natural sciences, math or engineering, may not be in a student’s best interest. Additional coursework may be completed as elective courses, to complement or supplement, a major course of study.

### Liberal Arts
- Art
- Art History
- Classics
- Comparative Cultures
- Creative Studies
- Drama/Theater Arts
- English and Literature
- Foreign Languages and Literatures
- Humanities
- Liberal Studies
- Linguistics
- Medieval Studies
- Museum Studies
- Music
- Musicology
- Philosophy
- Religious Studies
- Renaissance Studies
- Rhetoric

### Social Sciences
- Anthropology
- Behavioral Sciences
- Child Development
- Cultural Geography
- Economics
- Ethnic and Area Studies
- Asian Studies
- Chicana/Chicana Studies
- Comparative Cultures
- European Studies
- Latin American Studies
- Middle Eastern Studies
- Native American Studies
- Third World Studies
- History
- Human Development
- Law and Society
- Legal Studies
- Peace and Conflict Studies
- Political Science
- Psychology

### Natural Sciences & Math
- Biology
- Earth Science
- Geology
- Oceanography
- Physical Geography
- Physical Sciences
- Physics
- Soil/Water Sciences

### Physical Sciences
- Astrophysics
- Atmospheric Sciences
- Chemistry
- Earth Science
- Geophysics
- Geology
- Oceanography
- Physical Geography
- Physical Sciences
- Physics
- Soil/Water Sciences

### Math
- Mathematics
- Statistics
- Quantitative Methods

### Agriculture/Natural Resources/Environment
- Agricultural Management
- Agriculture
- Animal Science
- Bio-resources
- Conservation
- Entomology
- Environmental Biology/Toxicology
- Environmental Science/Studies
- Food Science
- Forestry
- Natural Resources Management
- Park Management
- Petroleum Studies
- Plant Biology
- Soil Sciences
- Wildlife Management

### Applied Arts
- Architecture
- Art
- Design
- Graphic Arts

### Engineering & Computer Science
- Aeronautics
- Bio-engineering
- Chemical
- Civil
- Electrical/Electronic
- Environmental
- Food Engineering
- Industrial Engineering
- Materials Science
- Mechanical
- Nuclear
- Petroleum

### Business
- Accounting
- Finance
- Human Resources Management
- Information Systems
- International Business Management
- Marketing
- Communication
- Advertising

### Communication Studies
- Film Studies
- Journalism
- Mass Communication
- Motion Picture – Television
- Photography
- Photo – Journalism
- Public – Relations
- Radio – Television Services

### Services
- Communication Disorders
- Counseling
- Criminal Justice

## University Transfer Major Options (continued)

### Physical Sciences
- Astrophysics
- Atmospheric Sciences
- Chemistry
- Earth Science
- Geophysics
- Geology
- Oceanography
- Physical Geography
- Physical Sciences
- Physics
- Soil/Water Sciences

### Engineering & Computer Science
- Aeronautics
- Bio-engineering
- Chemical
- Civil
- Electrical/Electronic
- Environmental
- Food Engineering
- Industrial Engineering
- Materials Science
- Mechanical
- Nuclear
- Petroleum

### Business
- Accounting
- Finance
- Human Resources Management
- Information Systems
- International Business Management
- Marketing
- Communication
- Advertising

### Communication Studies
- Film Studies
- Journalism
- Mass Communication
- Motion Picture – Television
- Photography
- Photo – Journalism
- Public – Relations
- Radio – Television Services

### Services
- Communication Disorders
- Counseling
- Criminal Justice
THE CALIFORNIA STATE UNIVERSITY

Lower Division Transfer Admission Requirements

Some campuses restrict enrollment of lower-division transfer students. California residents may be eligible for CSU admission with fewer than 60 transferable semester units (90 quarter units) if they:

• Have a college grade point average of 2.00 or better in all transferable college units attempted.
• Are in good standing at the last college or university attended, i.e., you are eligible to re-enroll.
• Meet the admission requirements for a first-time freshman or have successfully completed necessary courses to make up the deficiencies you in high school if you did not complete the 15-unit pattern of college preparatory subjects.
• Meet the eligibility index required of a freshman.

Some campuses may require lower-division transfer students to have completed English composition and general education mathematics prior to transfer. Some campuses do not admit lower-division transfer students.

Contact your campus of choice to determine whether there are admission limits on the number of lower-division transfer students.

Students who completed college units before they graduated from high school or during the summer between high school graduation and CSU enrollment are considered first-time freshmen and must meet those admission requirements.

Upper Division Transfer Admission Requirements

Students are eligible for admission with 60 or more transferable semester units (90 quarter units) if they:

• Have a college grade point average of 2.00 or better (2.40 for non-California residents) in all transferable college units attempted.
• Are in good standing at the last college or university attended, i.e., are eligible to re-enroll.
• Have completed or will complete prior to transfer at least 30 semester units (45 quarter units) of courses equivalent to general education requirements with a grade of “C” or better. The 30 units must include all of the general education requirements in communication in the English language (English composition, oral communication, and critical thinking) and at least one course of at least 3 semester units (4 quarter units) required in college-level mathematics.

The above information is from the 2009-2010 California State University (CSU) undergraduate application.
CALIFORNIA STATE UNIVERSITY GENERAL EDUCATION REQUIREMENTS 2009-10

The requirements listed below are for the 2009-2010 academic year and are based upon information available at the time of catalog publication. Students may contact the Counseling Center for most current information at (909) 594-5611, ext. 4293.

Forty-eight units of general education are required to graduate from campuses of the CSU system. A maximum of 39 units may be certified by community colleges; nine units must be taken at the upper division level. Acceptable courses are grouped in five areas, A through E. A maximum of 30 units may be certified from Areas B through D collectively. The list of certifiable courses will be subject to change by year, but students are assured that courses taken to meet General Education-Breadth Requirements will be honored if they are on the list during the year taken. The following program is structured so that a student who completes the program will be assured of properly meeting the General Education-Breadth Requirements of CSU. Area A and Mathematics must be completed with a minimum grade of "C." Students who have attended other colleges are urged to consult with a counselor or educational advisor for advice on satisfying General Education-Breadth Requirements.

Students beginning Fall 2009 must follow 2009-2010 CSU GE-Breadth requirements. Courses are approved for the academic year in which they were completed. Students may obtain a copy of the Counseling Center’s for the most recent version of the CSU GE come to the Counseling Center located in Student Services, upper level.

Area A

The English Language and Critical Thinking (9 units)

Select one course from each group:
A-1: Oral Communication:
SPCH 1A Public Speaking or
SPCH 1AH Public Speaking – Honors
A-2: Written Communication:
ENGL 1A Freshman Composition
ENGL 1AH Freshman Composition – Honors
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 Thinking and Logical Writing
PSYC 5 Psychology of Reasoning and Problem Solving
SPCH 1B Intermediate Public Speaking
SPCH 20 Argumentation and Debate
SPCH 20H Argumentation and Debate – Honors

Area B

The Physical Universe & Life (9 units minimum):
Select one course from each group. Also, one lab (+) course must be included in one of the science groups.
B-1: Physical Science –
Select at least one course from the following list:
ASTR 5 Introduction to Astronomy
ASTR 5H Introduction to Astronomy – Honors
+ASTR 5L Astronomical Observing Laboratory
ASTR 7 Geology of the Solar System
ASTR 8 Introduction to Stars, Galaxies and the Universe
+CHEM 10 Chemistry for Allied Health Majors
+CHEM 20 Introductory Organic and Biochemistry
+CHEM 40 Introduction to General Chemistry
+CHEM 50 General Chemistry I
+CHEM 50H General Chemistry I – Honors

Area C

Arts, Literature, Philosophy and Foreign Languages (9 units)
Select three courses, with at least one course from "Arts" and one course from "Humanities":
C-1: Arts
AHS 1 Understanding the Visual Arts or
AHS 1H Understanding the Visual Arts – Honors
AHS 2 Topics in Visual Art and Culture
AHS 2H Topics in Visual Art and Culture – Honors
AHS 3 History of Women and Gender in Art
AHS 3H History of Women and Gender in Art – Honors
AHS 4 History of Western Art: Prehistoric
AHS 4H History of Western Art: Prehistoric – Honors
AHS 5 History of Western Art: Renaissance
AHS 5H History of Western Art: Renaissance – Honors
AHS 6 History of Modern Art
AHS 6H History of Modern Art – Honors
AHS 9 History of Asian Art
AHS 10 A History of Greek and Roman Art and Architecture
AHS 11 History of African, Oceanic and Native American Art
AHS 12 History of Precolombian Art
AHS 12H History of Precolombian Art – Honors
ARCH 31 World Architecture I
ARCH 32 World Architecture II
ARTB 14 Basic Studio Arts
ARTB 15A Drawing: Beginning
ARTB 20 Design: Two Dimensional
ARTB 25A Painting: Beginning
ARTG 20 Art, Artists and Society
ARTS 22 Design: Three Dimensional
ARTS 30A Ceramics: Beginning
ARTS 40A Sculpture: Beginning
DIN-T 20 History and Appreciation of Dance
ID 180 History of Interior Architecture and Furnishings I

Area D

Area D

Area E

Area F

Area G

Area H

Area I

Area J

Area K

Area L

Area M

Area N

Area O

Area P

Area Q

Area R

Area S

Area T

Area U

Area V

Area W

Area X

Area Y

Area Z

Area E

Area F

Area G

Area H

Area I

Area J

Area K

Area L

Area M

Area N

Area O

Area P

Area Q

Area R

Area S

Area T

Area U

Area V

Area W

Area X

Area Y

Area Z

Area E

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Area H

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Area K

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Area M

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Area Q

Area R

Area S

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Area U

Area V

Area W

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Area P

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Area R

Area S

Area T

Area U

Area V

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Area X

Area Y

Area Z

Area E

Area F

Area G

Area H

Area I

Area J

Area K

Area L

Area M

Area N

Area O

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Area Q

Area R

Area S

Area T

Area U

Area V

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Area F

Area G

Area H

Area I

Area J

Area K

Area L

Area M
### CALIFORNIA STATE UNIVERSITY GENERAL EDUCATION REQUIREMENTS 2009-10

<table>
<thead>
<tr>
<th>Area A</th>
<th>Humanities</th>
</tr>
</thead>
<tbody>
<tr>
<td>* HIST 4 History of World Civilization</td>
<td></td>
</tr>
<tr>
<td>* HIST 8 History of the United States</td>
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<tr>
<td>* HIST 10 History of Asia</td>
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<td>* HIST 19 History of Mexico</td>
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<td>* HIST 30 History of the African American</td>
<td></td>
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<td></td>
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<tr>
<td>* HIST 35 History of Africa</td>
<td></td>
</tr>
<tr>
<td>* HIST 36 Women in American History – Beyond the Stereotypes</td>
<td></td>
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<td>* HIST 39 California History</td>
<td></td>
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<tr>
<td>* HUMA 1 The Humanities</td>
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<tr>
<td>FRCH 60 French Culture Through Cinema</td>
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<tr>
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<td>GERM 3 Intermediate German</td>
<td></td>
</tr>
<tr>
<td>* HIST 1 History of the United States</td>
<td></td>
</tr>
<tr>
<td>* HIST 3 History of World Civilization</td>
<td></td>
</tr>
<tr>
<td>* HIST 3H History of World Civilization – Honors</td>
<td></td>
</tr>
<tr>
<td>* HIST 4 History of World Civilization</td>
<td></td>
</tr>
<tr>
<td>* HIST 4H History of World Civilization – Honors</td>
<td></td>
</tr>
<tr>
<td>* HIST 5 History of World History</td>
<td></td>
</tr>
<tr>
<td>* HIST 6 History of World History</td>
<td></td>
</tr>
<tr>
<td>* HIST 7 History of the United States</td>
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<tr>
<td>* HIST 7H History of the United States</td>
<td></td>
</tr>
<tr>
<td>* HIST 8 History of the United States – Honors</td>
<td></td>
</tr>
<tr>
<td>* HIST 8H History of the United States – Honors</td>
<td></td>
</tr>
<tr>
<td>* HIST 10 History of Asia</td>
<td></td>
</tr>
<tr>
<td>* HIST 11 History of Asia</td>
<td></td>
</tr>
</tbody>
</table>

### Area B: Social, Political, and Economic Institutions and Behavior: Historical Background

#### Required Courses: Minimum 9 units with courses from at least two disciplines (D0 – D9):

<table>
<thead>
<tr>
<th>D-0: Sociology &amp; Criminology</th>
</tr>
</thead>
<tbody>
<tr>
<td>* HIST 40 History of the Mexican American</td>
</tr>
<tr>
<td>* HIST 30 History of the African American</td>
</tr>
<tr>
<td>* HIST 31 History of the African American</td>
</tr>
<tr>
<td>* HIST 35 History of World Civilization</td>
</tr>
<tr>
<td>* HIST 40 History of the Mexican American</td>
</tr>
<tr>
<td>* HIST 44 History of Native Americans</td>
</tr>
<tr>
<td>JOUR 107 Race, Culture, Sex, and Mass Media Images</td>
</tr>
<tr>
<td>POLI 20 Politics of the Mexican American</td>
</tr>
<tr>
<td>POLI 35 African American Politics</td>
</tr>
<tr>
<td>SOC 20 Sociology of Ethnic Relations</td>
</tr>
<tr>
<td>SOC 20H Sociology of Ethnic Relations – Honors</td>
</tr>
</tbody>
</table>

#### D-1: Anthropology & Archaeology

<table>
<thead>
<tr>
<th>ANTH 3 Archeology</th>
</tr>
</thead>
<tbody>
<tr>
<td>* ANTH 5 Principles of Cultural Anthropology</td>
</tr>
<tr>
<td>* ANTH 22 General Cultural Anthropology</td>
</tr>
<tr>
<td>ANTH 30 The Native American</td>
</tr>
</tbody>
</table>

#### D-2: Economics

<table>
<thead>
<tr>
<th>AGFR 20 Conservation of Natural Resources</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUSC 1A Principles of Economics – Macroeconomics</td>
</tr>
<tr>
<td>Busc 1AH Principles of Economics – Macroeconomics – Honors</td>
</tr>
</tbody>
</table>

### CSU American Institutions & U.S. History Graduation Requirement:

**Option 1:** HIST 7 (or 7H) + HIST 8 (or 8H)

If Option #1 is selected, DO NOT select another D6 course as your third Area D course.

**Option 2:** Completion of one course from U.S. History plus one course from American Institutions:

<table>
<thead>
<tr>
<th>United States History:</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIST 31 HIST 31</td>
</tr>
<tr>
<td>HIST 30 HIST 30</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>American Institutions:</th>
</tr>
</thead>
<tbody>
<tr>
<td>POLI 1 POLI 1</td>
</tr>
<tr>
<td>POLI 25 POLI 25</td>
</tr>
</tbody>
</table>

The two courses from Option 1 or Option 2 may be used as part of the 9 units for Area D.
### California State University General Education Requirements 2009-10

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIST 19</td>
<td>History of Mexico</td>
</tr>
<tr>
<td>HIST 30</td>
<td>History of the African American</td>
</tr>
<tr>
<td>HIST 31</td>
<td>History of the African American</td>
</tr>
<tr>
<td>HIST 35</td>
<td>History of Africa</td>
</tr>
<tr>
<td>HIST 36</td>
<td>Women in American History – Beyond the Stereotypes</td>
</tr>
<tr>
<td>HIST 39</td>
<td>California History</td>
</tr>
<tr>
<td>HIST 40</td>
<td>History of the Mexican American</td>
</tr>
<tr>
<td>HIST 44</td>
<td>History of Native Americans</td>
</tr>
<tr>
<td>CHLD 10</td>
<td>Child Growth and Development</td>
</tr>
<tr>
<td>CHLD 10H</td>
<td>Child Growth and Development – Honors</td>
</tr>
<tr>
<td>SPCH 7</td>
<td>Intercultural Communication</td>
</tr>
<tr>
<td>SPCH 7H</td>
<td>Intercultural Communication – Honors</td>
</tr>
<tr>
<td>SPCH 26</td>
<td>Interpersonal Communication</td>
</tr>
<tr>
<td>SPCH 26H</td>
<td>Interpersonal Communication – Honors</td>
</tr>
<tr>
<td>POLI 1</td>
<td>Political Science</td>
</tr>
<tr>
<td>POLI 1H</td>
<td>Political Science – Honors</td>
</tr>
<tr>
<td>POLI 2</td>
<td>Political Science</td>
</tr>
<tr>
<td>POLI 5</td>
<td>Political Science Theory</td>
</tr>
<tr>
<td>POLI 9</td>
<td>Introduction to International Relations</td>
</tr>
<tr>
<td>POLI 25</td>
<td>Politics of the Mexican American</td>
</tr>
<tr>
<td>POLI 35</td>
<td>African American Politics</td>
</tr>
<tr>
<td>PSYC 1A</td>
<td>Introduction to Psychology</td>
</tr>
<tr>
<td>PSYC 1AH</td>
<td>Introduction to Psychology – Honors</td>
</tr>
<tr>
<td>PSYC 14</td>
<td>Developmental Psychology</td>
</tr>
<tr>
<td>PSYC 19</td>
<td>Abnormal Psychology</td>
</tr>
<tr>
<td>PSYC 25</td>
<td>The Psychology of Women</td>
</tr>
</tbody>
</table>

**Area E**

Lifelong Understanding & Self Development (3 units)

Select at least one course.

- AD 3: Chemical Dependency: Intervention, Treatment and Recovery
- BIOL 5: Contemporary Health Issues
- BIOL 13: Human Reproduction, Development and Aging
- BIOL 15: Human Sexuality
- BIOL 15H: Human Sexuality – Honors
- CHLD 10: Child Growth and Development
- CHLD 10H: Child Growth and Development – Honors
- COUN 5: Career/Life Planning
- ECS 41: Life Management
- LEAD 55: Exploring Leadership

Notes:
1. Upper division transfer students (60-70 semester baccalaureate units) will need to have at least 30 semester units of general education. Within those 30 units, Area A (9) semester units and Mathematics (3) semester units must be completed with grades of “C” or better.
2. CSULA transfer students are advised to complete ENGL 1C or ENGL 1CH as part of the Area A requirements. CSULA requires completion of ENGL 102 (ENGL 1C or 1CH) as a prerequisite to UNIV 400 (Writing Proficiency Examination).
3. Courses on this list have been approved by the CSU Office of the Chancellor for Fall 2009 and beyond. If a course was completed prior to approval, it cannot be certified for CSU General Education–Breadth requirements.
4. Some majors at CSU do not allow double counting of major preparation courses and general education requirements. Students are advised to consult with a counselor or advisor to determine if courses can be double counted.
5. Some majors require specific general education courses. Students planning to transfer are advised to plan their schedules carefully in order to maintain progress.

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

UC Minimum Admission Requirements

There are several ways to meet the University’s minimum admission requirements for transfer students, as described below. The path you use depends on the degree to which you satisfied UC’s minimum eligibility requirements for freshmen, at the time you graduated from high school. In all cases, you must have at least a “C” (2.0) grade point average in all transferable coursework. If you need assistance in determining whether you met the requirements, contact an educational advisor in the Counseling Center.

Minimum Admission Requirements for California Residents Transferring to UC

1. If you were eligible for admission to the University when you graduated from high school – meaning you satisfied the Subject, Scholarship, and Examination Requirements, or were identified by the University during your senior year in high school as eligible in the Local Context – you are eligible for transfer if you have a 2.0 GPA in your transferable coursework.

2. If you met the Scholarship Requirement in high school but did not satisfy the Subject Requirement, you must take transferable college courses in the missing subjects, earn a “C” or better in each required course, and maintain a 2.0 GPA in all transferable coursework to be eligible to transfer.

3. If you were not eligible for admission to the University when you graduated from high school because you did not meet the Scholarship Requirement, you must:
   A. Complete 60 semester units (or 90 quarter units) of transferable college credit with at least a 2.4 GPA. No more than 14 semester units may be taken pass/no pass; and
   B. Complete the following course pattern requirement, earning a grade of “C” or better in each course:
      • two transferable college courses (3 semester or 4-5 quarter units each) in English composition; and
      • one transferable college course (3 semester or 4-5 quarter units) in mathematical concepts and quantitative reasoning; and
      • four transferable college courses (3 semester or 4-5 quarter units each) chosen from at least two of the following subject areas: the arts and humanities, the social and behavioral sciences, and the physical and biological sciences.

Students who satisfy the Intersegmental General Education Transfer Curriculum (IGETC) prior to transferring to UC may satisfy Option 3B of the transfer admission requirements.
Transferring to California Colleges and Universities

**INTERSEGMENTAL GENERAL EDUCATION TRANSFER CURRICULUM (IGETC) 2009-10**

The requirements listed below are for the 2009-2010 academic year and are based upon information available at the time of catalog publication. Students may contact the Counseling Center for most current information at (909) 594-5611, ext. 4293.

Completion of the IGETC will permit a student to transfer from Mt. SAC to a campus in either the University of California (UC) system or California State University (CSU) without the need, after transfer, to take additional lower-division general education courses to satisfy university general education requirements. It should be noted that completion of the IGETC is not an admission requirement for transfer to UC or CSU, nor is it the only way to fulfill the lower-division general education requirements of UC or CSU prior to transfer. Students pursuing majors that require extensive lower-division preparation may not find the IGETC option to be advantageous (i.e., Engineering, Sciences).

The requirements listed below must be completed in their entirety for full certification to the UC and CSU. For students who have completed coursework at multiple campuses, the campus of last attendance prior to transfer to UC or CSU will certify the coursework. Mt. SAC will certify coursework from other campuses according to the IGETC list of the originating campus. A minimum grade of "C" is required in each course. (A grade of "C–" is not acceptable.)

Students beginning Fall 2009 must follow 2009-2010 IGETC requirements. Courses are approved for the academic year in which they were completed. Students may obtain a copy of the Counseling Center.

### Area 1
**English Communication**
Select one course from each group:

- **Group A: English Composition**
  - ENGL 1A Freshman Composition, or
  - ENGL 1AH Freshman Composition – Honors

- **Group B: Critical Thinking – Composition**
  - ENGL 1C Critical Thinking and Writing, or
  - ENGL 1CH Critical Thinking and Writing – Honors

- **Group C: Oral Communication**
  - SPCH 1A Public Speaking, or
  - SPCH 1AH Public Speaking – Honors

### Area 2
**Mathematical Concepts and Quantitative Reasoning**
Select one course from:

- MATH 110 Elementary Statistics
- MATH 110H Elementary Statistics – Honors
- MATH 120 Finite Mathematics
- MATH 130 College Algebra
- MATH 140 Calculus for Business
- MATH 160 Precalculus Mathematics
- MATH 180 Calculus and Analytic Geometry
- MATH 181 Calculus and Analytic Geometry
- MATH 280 Calculus and Analytic Geometry
- MATH 285 Linear Algebra and Differential Equations
- PSYC 10 Statistics for the Behavioral Sciences

### Area 3
**Arts and Humanities**
Select three courses minimum, at least one course from the Arts group and one course from the Humanities group:

#### Arts Courses:
- **AHIS 1** Understanding the Visual Arts, or
- **ARTB 1** Understanding the Visual Arts
- **AHIS 5H** History of Western Art: Renaissance, through Medieval – Honors
- **AHIS 10** A History of Greek and Roman Art and Architecture
- **AHIS 11** History of African, Oceanic, and Native American Art
- **AHIS 12** History of Precolombian Art
- **AHIS 12H** History of Precolombian Art – Honors
- **ARCH 1** World Architecture I
- **ARCH 11** World Architecture II
- **DN 1T 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

#### Humanities Courses:
- **CHIN 3** Intermediate Chinese
- **CHIN 4** Continuing Intermediate Chinese
- **ENGL 1B** English – Introduction to Literary Types
- **ENGL 1BH** English – Introduction to Literary Types – Honors
- **FRC 3** Intermediate French
- **FRC 4** Continuing Intermediate French
- **FRC 5** Advanced French
- **FRC 6** Continuing Advanced French
- **FRC 60** French Culture through Cinema
- **GERM 3** Intermediate German
- **HIST 1** History of the United States
- **HIST 3** History of World Civilization
- **HIST 3H** History of World Civilization – Honors
- **HIST 4** History of World Civilization
- **HIST 4H** History of World Civilization – Honors
- **HIST 7** History of the United States
- **HIST 7H** History of the United States – Honors
- **HIST 8** History of the United States
- **HIST 8H** History of the United States – Honors
- **HIST 10** History of Asia
- **HIST 11** History of Asia
- **HIST 19** History of Mexico
- **HIST 30** History of the African American
- **HIST 31** History of the African American
- **HIST 35** History of Africa
- **HIST 36** Women in American History – Beyond the Stereotypes
- **HIST 39** California History
- **HIST 40** History of the Mexican American
- **HUMA 1** The Humanities
- **ITAL 3** Intermediate Italian
- **ITAL 4** Continuing Intermediate Italian
- **ITAL 5** Advanced Italian
- **ITAL 6** Continuing Advanced Italian
- **ITAL 60** Italian Culture through Cinema
- **JAPN 3** Intermediate Japanese
- **JAPN 4** Continuing Intermediate Japanese
- **JAPN 5** Advanced Japanese
- **LIT 1** Early American Literature
- **LIT 1 2** Modern American Literature
- **LIT 3** Multicultural American Literature
- **LIT 6A** Survey of English Literature
- **LIT 6B** Survey of English Literature
- **LIT 10** Survey of Shakespeare
- **LIT 11A** World Literature
- **LIT 11B** World Literature
- **LIT 14** Introduction to Modern Poetry
- **LIT 15** Introduction to Cinema
- **LIT 20** African American Literature
- **LIT 25** Contemporary Mexican American Literature
- **LIT 33** Images of Women in Literature
- **LIT 35** Science Fiction and Fantasy Survey
- **LIT 36** Introduction to Mythology
- **LIT 46** The Bible as Literature: Old Testament
- **LIT 47** The Bible as Literature: New Testament
- **PHIL 5** Introduction to Philosophy
- **PHIL 5H** Introduction to Philosophy – Honors
- **PHIL 12** Ethics
- **PHIL 12H** Ethics – Honors
- **PHIL 15** Major World Religions
- **PHIL 15H** Major World Religions – Honors
- **PHIL 20A** History of Western Philosophy
- **PHIL 20B** History of Western Philosophy
- **SIGN 104** American Sign Language 4
- **SIGN 202** American Deaf Culture
- **SPAN 3** Intermediate Spanish
- **SPAN 4** Continuing Intermediate Spanish
- **SPAN 5** Advanced Spanish
- **SPAN 6** Continuing Advanced Spanish
- **SPAN 25** Spanish Literature
Select three courses total from a minimum of two different subject areas:

**Area 4**

Social and Behavioral Sciences

Choose two courses from at least one physical and one biological science, at least one must include a laboratory. Laboratory courses are underlined.

**Physical and Biological Sciences**

Choose two courses, one physical and one biological science, at least one must include a laboratory. Laboratory courses are underlined.

**Area 5**

Social and Behavioral Sciences

Select three courses total from a minimum of two different subject areas:

**Physical Science:**

- ASTR 5: Introduction to Astronomy
- ASTR 6L: Astronomical Observing Laboratory
- ASTR 7: Geology of the Solar System

**Biological Science:**

- ANAT 10A: Introduction to Human Anatomy
- ANAT 10B: Introduction to Human Physiology
- ANTH 1: Biological Anthropology
- ANTH 1H: Biological Anthropology – Honors
- ANTH 1L: Biological Anthropology Laboratory
- BIOL 1: General Biology
- BIOL 2: Plant and Animal Biology
- BIOL 4: Biogeography
- BIOL 4H: Biogeography – Honors
- BIOL 5: Biogeography of the African American
- BIOL 6: Humans and the Environment
- BIOL 6L: Humans and the Environment Laboratory
- BIOL 8: Cell and Molecular Biology
- BIOL 20: Marine Biology
- BIOL 21: Marine Biology Laboratory
- MICR 1: Principles of Microbiology
- MICR 21: Microbiology
- PSYC 1B: Biological Psychology

UC REQUIREMENT ONLY

**Language other than English:**

The minimum proficiency required is met by completing one of the courses listed below or by completion of two years of high school study in the same language.

- ARAB 1: Elementary Arabic
- CHIN 1: Elementary Chinese
- FREN 1: Elementary French
- GER 1: Elementary German
- JAP 1: Elementary Japanese
- SPAN 1: Elementary Spanish
- SPAN 11: Spanish for the Spanish Speaking

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

**Notes:** UCSD requires a college-level U.S. history or government course.

Option 1:

- HIST 7 (or 7H) + HIST 8 (or 8H)

If Option #1 is selected, DO NOT select another D6 course as your third Area D course.

Option 2:

- Completion of one course from U.S. History plus one course from American Institutions.

See the categories below under United States History and American Institutions.

**United States History:**

- HIST 1: History of the United States
- HIST 7: History of the United States
- HIST 7H: History of the United States – Honors
- HIST 8: History of the United States
- HIST 8H: History of the United States – Honors
- HIST 30: History of the African American
- HIST 31: History of the African American
- HIST 36: Women in American History – Beyond the Stereotypes
- HIST 40: History of the Mexican American

**American Institutions:**

- POLI 1: Political Science
- POLI 1H: Political Science – Honors
- POLI 25: Politics of the Mexican American
- POLI 35: African American Politics

**Notes:** UC limits transfer credit for some courses. Students may review the UC Transfer Course Agreement (TCA) with an educational advisor or counselor in the Student Services Center. Students must see an educational advisor or counselor for preliminary IGETC certification. For IGETC certification, the course must be on the list during the year taken. Students from non-English speaking countries should see an educational advisor or international student counselor for language proficiency equivalences.
### IGETC After Transfer

**Partial Certification of the Intersegmental General Education Transfer Curriculum (IGETC)**

The IGETC provides a pattern of courses that fulfills the transfer general education requirements at both the University of California (UC) and the California State University (CSU). Each California community college offers a complete set of courses that satisfies IGETC. If you attend more than one community college, the campus you attend just prior to transfer will certify your completion of IGETC, including courses taken at other colleges. The IGETC pattern is not recommended for all majors. See your counselor/educational advisor for advice and more complete information on the IGETC certification.

### California Independent Colleges and Universities

California’s fully-accredited independent colleges and universities provide many options at the undergraduate, graduate, and professional levels for students planning to continue their education beyond the community college.

Admission requirements vary and are listed in the catalogs of the various universities and colleges.

Financial aid may be a primary factor in making it possible for a student to attend an independent college or university. There are many forms of financial assistance available, such as federal, state, institutional, and private aid. Students should apply for scholarships, grants, loans, and work-study awards from all possible sources. All independent colleges urge, and some require, that all undergraduates who are California residents apply for a Cal Grant. Financial aid applications are available in January for the following academic year and may be obtained from a campus financial aid office. Filing instructions and deadlines are indicated on the form. Contact the individual campuses for details and assistance in completing the necessary forms.

The independent colleges and universities include:

- Alliant International University
- American Academy of Dramatic Arts Los Angeles
- Antioch University Los Angeles
- Art Center College of Design
- Azusa Pacific University
- Biola University
- California Baptist University
- California College of the Arts
- California Institute of Technology (Cal Tech)
- California Institute of the Arts
- California Lutheran University
- Chapman University
- Charles R. Drew University of Medicine and Science
- Claremont Graduate University
- Claremont McKenna College
- Cogswell Polytechnical College
- Concordia University
- DeVry Institute of Technology
- Dominican University of California
- Fielding Graduate University
- Fresno Pacific University
- Golden Gate University
- Harvey Mudd College
- Holy Names College
- Hope International University
- Humphreys College
- John F. Kennedy University
- Keck Graduate Institute
- La Sierra University
- Laguna College of Art and Design
- Loma Linda University
- Loyola Marymount University
- Marymount College
- The Master’s College
- Menlo College
- Mills College
- Monterey Institute of International Studies
- Mount St. Mary’s College
- National University
- Notre Dame de Namur University
- Occidental College
- Otis College of Art and Design
- Pacific Graduate School of Psychology
- Pacific Oaks College
- Pacific Union College
- Patten College
- Pepperdine University
- Phillips Graduate Institute
- Pomona College
- Point Loma Nazarene University
- Pomona College
- Saint Mary’s College of California
- Samuel Merritt College
- San Diego Christian College
- San Francisco Conservatory of Music
- Santa Clara University
- Saybrook Graduate School and Research Center
- Scripps College
- Simpson University
- Soka University of America
- Southern California University of Health Sciences
- Stanford University
- Thomas Aquinas College
- Touro University California
- University of Judaism
- University of La Verne
- University of Redlands
- University of San Diego
- University of San Francisco
- University of Southern California
- University of the Pacific
- Vanguard University of Southern California
- Western University of Health Sciences
- Westmont College
- Whittier College
- William Jessup University
- Woodbury University

For more information on California Independent Colleges and Universities see an educational advisor or counselor in the Counseling Center. You may also obtain information from the aiccu.edu.
Section 10

Course Descriptions
Course Descriptions

DEFINITIONS OF TERMS

CSU Transfer
Courses designated “CSU” are baccalaureate level and will transfer to all of the California State Universities and count toward graduation at Mt. San Antonio College.

CSU/UC Cross Enrollment Program
California residents students at Mt. San Antonio College may enroll in one undergraduate course per term at any CSU or UC campus provided the student has met the course prerequisites and approval is granted by both Mt. SAC and the university. To cross-enroll, students must have completed at least one term at Mt. SAC; have a 2.0 grade point average (GPA) in transferable course work; and be enrolled in at least six units at Mt. SAC. A $10.00 fee plus any material/laboratory fees associated with the course may be charged. To apply for the CSU/UC Cross Enrollment Program, students must complete the CSU/UC Cross Enrollment application; these forms are available in the Advising Center.

UC Transfer/UC Credit Limitation
Courses designated “UC” are baccalaureate level and will transfer to all of the University of California campuses and California State Universities, and will count toward graduation at Mt. San Antonio College. UC limits credit for some courses. Students contemplating transfer to UC should consult with an educational advisor and review the UC Transfer Course Agreement (TCA) for course credit limitations and changes.

UC Credit for Physical Education Activity Courses
A maximum of four semester units of UC credit will be awarded for Physical Education Activity courses. Courses of a vocational nature such as Fire or Police Academy Protection Preparation or Aerobic Instructor Training will not be awarded UC credit.

UC Credit Pending
Credit for Special Projects courses are given only after a review of the topic for the course by the enrolling UC campus. This usually occurs after transfer and may include recommendations from faculty. UC will not give credit for special projects courses in Journalism, Photography, Health, Business Administration, Architecture, Administration of Justice (Criminology) or Library Departments because of the credit restrictions in those areas.

CAN (California Articulation Number System)
The California Articulation Number (CAN) System is a statewide numbering system of independent twin course numbers assigned by local colleges. A CAN number signals that participating California colleges and universities have determined that courses offered by other campuses are equivalent in content and scope to courses offered on their own campuses, regardless of their unique titles or local identifying numbers. Thus, if a schedule of classes or catalog lists a course bearing a CAN number, students on one campus can be assured that it will be accepted in lieu of the comparable CAN course noted in the catalog or schedule of classes of another campus. For example, CAN ECON 2 on one campus will be accepted as meeting the requirement of the designated CAN ECON 2 course on another participating community college or university campuses.

The CAN numbering system is obviously useful for students attending more than one community college and is applied to many of the transferable, lower division courses students need as preparation for their intended major. Because these course requirements may change, however, and because courses are continually being redefined, qualified, or deleted from the CAN database, students should always check with an educational advisor in the Advising Center or counselor in the Counseling Department to determine how CAN-designated courses fit into their educational plans for transfer. Students should consult the ASSIST database at www.assist.org for specific information on course agreements. The college staff will help students interpret this information.

Eligibility
In listing a prerequisite for enrolling in a course, an “eligibility” may also be listed. An eligibility requirement specifies the course level the student must qualify to enroll in—not that the course has to be completed prior to enrollment. For example, the prerequisite “eligibility for English 68” requires that the student must qualify to enroll in English 68 in order to enroll in the particular course.

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

Corequisite
A corequisite is a course which is required to be taken simultaneously in order to enroll in another course.

Advisory
An advisory prerequisite is a course which is advised, but not required, to be taken either before or in conjunction with enrollment in a course.

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

Non-Degree Credit
Courses designated “Non-Degree Credit” are college level classes which are neither a part of an associate degree or certificate program nor transferable to four-year colleges and universities.

Degree Appropriate
Courses designated “Degree Appropriate” are college-level classes which are a part of an associate degree or certificate program.

Physical Education Activity
Physical education activity units consist of a combination of lecture and activity hours. This includes all PE classes except those having a prefix of PE.

UC Credit for Physical Education Activity Courses
A maximum of four semester units of UC credit will be awarded for Physical Education activity courses. Courses of a vocational nature such as Fire or Police Academy Protection Preparation or Aerobic Instructor Training will not be awarded UC credit.
<table>
<thead>
<tr>
<th>COURSE PREFIX LISTING</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADEL Administration of Justice: Law Enforcement</td>
</tr>
<tr>
<td>AERO Aeronautics</td>
</tr>
<tr>
<td>AGAB Agriculture: Agri-Business</td>
</tr>
<tr>
<td>AGHE Agriculture: Animal Health Technology</td>
</tr>
<tr>
<td>AGAN Agriculture: Animal Science – General</td>
</tr>
<tr>
<td>AGFR Agriculture: Forestry, Conservation</td>
</tr>
<tr>
<td>AGAG Agriculture: General Subjects</td>
</tr>
<tr>
<td>AGLI Agriculture: Livestock Production</td>
</tr>
<tr>
<td>AGOR Agriculture: Ornamental Horticulture</td>
</tr>
<tr>
<td>AGPE Agriculture: Pet Science</td>
</tr>
<tr>
<td>AIRC Air Conditioning &amp; Refrigeration</td>
</tr>
<tr>
<td>AIRT Air Traffic Control</td>
</tr>
<tr>
<td>AIRM Aircraft Maintenance Technology</td>
</tr>
<tr>
<td>AD Alcohol Drug Counseling</td>
</tr>
<tr>
<td>AMLA American Language</td>
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<tr>
<td>ANAT Anatomy &amp; Physiology</td>
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<tr>
<td>ANTH Anthropology</td>
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<tr>
<td>ARAB Arabic</td>
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<tr>
<td>ARCH Architectural Technology</td>
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<tr>
<td>ARTS Art: Three-Dimensional Studio Arts</td>
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<tr>
<td>ARTD Art: Two-Dimensional Studio Arts</td>
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<tr>
<td>ARTB Art: Basic Studio Arts</td>
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<tr>
<td>ARTG Art: Gallery &amp; Professional Practices</td>
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<tr>
<td>ARTZ Art: Special Studio Arts</td>
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<tr>
<td>ARTM Art: Advertising Design/Graphics</td>
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<tr>
<td>ARTM Art: Animation</td>
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<tr>
<td>GRAP Computer Graphics</td>
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<tr>
<td>CISX Computer Information Systems: Auxiliary</td>
</tr>
<tr>
<td>CISB Computer Information Systems: Beginning</td>
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<tr>
<td>CISD Computer Information Systems: Database</td>
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<tr>
<td>CISM Computer Information Systems: Management</td>
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<tr>
<td>CISN Computer Information Systems: Networking</td>
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<tr>
<td>CSP Computer Information Systems: Programming</td>
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<td>CISS Computer Information Systems: Security</td>
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<tr>
<td>CISSW Computer Information Systems: Web Applications</td>
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<tr>
<td>DACE Dance</td>
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<tr>
<td>DIN-T Dance: Theory</td>
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<tr>
<td>DSPS Disabled Students</td>
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<tr>
<td>EDUC Education</td>
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<tr>
<td>ELEC Electronics</td>
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<tr>
<td>EST Electronics Systems Technology</td>
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<tr>
<td>EMS Emergency Medical Service</td>
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<tr>
<td>EMT Emergency Medical Technician</td>
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<tr>
<td>ENGR Engineering</td>
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<tr>
<td>ETD Engineering Design Technology</td>
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<tr>
<td>ENGL English: Composition</td>
</tr>
<tr>
<td>FCS Family &amp; Consumer Sciences</td>
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<tr>
<td>FASH Fashion Merchandising &amp; Design</td>
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<tr>
<td>FIRE Fire Technology</td>
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<tr>
<td>FRCH French</td>
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<tr>
<td>GEOG Geography</td>
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<td>GEOL Geology</td>
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<tr>
<td>GERM German</td>
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<tr>
<td>HIST History</td>
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<tr>
<td>HT Histotechnology</td>
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<tr>
<td>HRM Hospitality &amp; Restaurant Management</td>
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<tr>
<td>HUMA Humanities</td>
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<tr>
<td>INSPI Inspection &amp; Estimating, Building</td>
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<tr>
<td>ID Interior Design</td>
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<tr>
<td>ITAL Italian</td>
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<tr>
<td>JAPN Japanese</td>
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<td>JOUR Journalism</td>
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<tr>
<td>LATN Latin</td>
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<tr>
<td>LEAD Leadership</td>
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<tr>
<td>LEAD Learning Assistance Services</td>
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<tr>
<td>Libr Library &amp; Instructional Media</td>
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<tr>
<td>LIT Literature</td>
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<tr>
<td>MFCH Manufacturing Technology</td>
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<tr>
<td>MATH Mathematics</td>
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<tr>
<td>MEDI Medical Terminology</td>
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<tr>
<td>MNT Mental Health/Psychiatric Technician</td>
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<tr>
<td>METO Meteorology</td>
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<tr>
<td>MIRO Microbiology</td>
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<tr>
<td>MUS Music</td>
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<tr>
<td>NURS Nursing</td>
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<tr>
<td>NF Nutrition &amp; Food</td>
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<tr>
<td>OCEA Oceanography</td>
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<tr>
<td>PHL Philosophy</td>
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<tr>
<td>PHOT Photography</td>
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<tr>
<td>PE-L Physical Education: Adaptive</td>
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<tr>
<td>PE-A Physical Education: Aquatics</td>
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<td>PE-X Physical Education: Athletics</td>
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<td>PHE Physical Education: Fitness</td>
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<td>PE-I Physical Education: Individual</td>
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<tr>
<td>PE-S Physical Education: Team Sports</td>
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<td>PE-E Physical Education: Theory</td>
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<tr>
<td>PHSC Physical Science</td>
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<tr>
<td>PHTH Physical Therapy</td>
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<tr>
<td>PAP Physician Assistant Preparatory</td>
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<tr>
<td>PHYS Physics</td>
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<tr>
<td>POLI Political Science</td>
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<tr>
<td>PSYC Psychology</td>
</tr>
<tr>
<td>R-TV Radio &amp; Television</td>
</tr>
<tr>
<td>RAD Radiologic Technology</td>
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<tr>
<td>READ Reading</td>
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<tr>
<td>RESD Respiratory Therapy</td>
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<tr>
<td>SL Service Learning</td>
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<tr>
<td>SIGN Sign Language &amp; Interpreting</td>
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<tr>
<td>SOC Sociology</td>
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<tr>
<td>SPAN Spanish</td>
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<tr>
<td>SPECH Speech</td>
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<tr>
<td>STDY Study Techniques</td>
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<tr>
<td>SURV Surveying</td>
</tr>
<tr>
<td>TECH Technology &amp; Related Courses</td>
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<tr>
<td>THTR Theater Arts</td>
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<tr>
<td>TRAN Transportation</td>
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<tr>
<td>TUR Tutor Training</td>
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<tr>
<td>WATR Water Technology</td>
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<td>WEL Welding</td>
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</tbody>
</table>
### ADMINISTRATION OF JUSTICE: LAW ENFORCEMENT

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADJU 1</td>
<td>The Administration of Justice System</td>
<td>3</td>
<td>History and philosophy of the justice system, subsystems, roles, relationships and theories of crime causation and correction.</td>
</tr>
<tr>
<td>ADJU 2</td>
<td>Principles and Procedures of the</td>
<td>3</td>
<td>Roles and responsibilities of each segment of the justice system; additional focus on relationships between system segments and sub-system procedures from initial incident to final disposition.</td>
</tr>
<tr>
<td>ADJU 3</td>
<td>Concepts of Criminal Law</td>
<td>3</td>
<td>Provides an overview of California criminal law from the perspective of the law enforcement officer.</td>
</tr>
<tr>
<td>ADJU 4</td>
<td>Legal Aspects of Evidence</td>
<td>3</td>
<td>Introduction to criminal evidence, including admissibility, witness competency, privileged communication, hearsay, and collection and preservation of evidence.</td>
</tr>
<tr>
<td>ADJU 5</td>
<td>Community Relations</td>
<td>3</td>
<td>Focus on service image, diversity, human relations, crises, and confrontations with the public.</td>
</tr>
<tr>
<td>ADJU 6</td>
<td>Concepts of Enforcement Services</td>
<td>3</td>
<td>Responsibilities, techniques and methods of police patrol with emphasis on the basic knowledge required in handling common police occurrences.</td>
</tr>
<tr>
<td>ADJU 13</td>
<td>Concepts of Traffic Services</td>
<td>3</td>
<td>A study of traffic management, collision reconstruction, collision factors including law violations and human factors, collision evidence, traffic enforcement techniques and specialization in traffic management. Emphasis is placed on service to the motoring public.</td>
</tr>
<tr>
<td>ADJU 20</td>
<td>Principles of Investigation</td>
<td>3</td>
<td>Fundamentals of investigation; 4th Amendment issues including crime scene search and recording; collection and preservation of physical evidence; modus operandi; scientific aids; sources of information; interviews and interrogation; follow up and case preparation.</td>
</tr>
<tr>
<td>ADJU 25</td>
<td>Commercial Pilot Ground School</td>
<td>3</td>
<td>A basic study of weather elements, the atmosphere, weather mechanics, weather disturbances, weather analysis and forecasts. Evaluation of aviation weather reports and forecasts.</td>
</tr>
<tr>
<td>AERO 23</td>
<td>Primary Pilot Ground School</td>
<td>4</td>
<td>Basic aerodynamics, aircraft performance, Federal Aviation Regulations, aviation weather factors, and cross-country navigation procedures; provides introductory material on radio navigation, aeronautical factors, and radio communications procedures. Meets the preparation requirements for the FAA Private Pilot computerized knowledge examination.</td>
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</table>

### AERONAUTICS

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AERO 24</td>
<td>Navigation</td>
<td>3</td>
<td>Advanced dead reckoning navigation procedures. Aeronautical computers and their application in cross-country flying. Use of radio navigation aids, flight planning, flight directors, global positioning system, and electronic flight instrumentation systems.</td>
</tr>
<tr>
<td>AERO 25</td>
<td>Commercial Pilot Ground School</td>
<td>3</td>
<td>FAA Commercial Pilot certification requirements, including aerodynamics, commercial pilot maneuvers, complex aircraft operations, multi-engine aircraft operations, aircraft weight and balance, aircraft performance charts, and radio navigation using advanced instrumentation. Prepares students for completion of the FAA Commercial Pilot Computerized Knowledge Examination.</td>
</tr>
<tr>
<td>AERO 26</td>
<td>Aviation Weather</td>
<td>3</td>
<td>Aeronautical weather reports and forecasts. Evaluation of aviation weather reports and forecasts.</td>
</tr>
<tr>
<td>AERO 27</td>
<td>Aviation Safety and Human Factors</td>
<td>3</td>
<td>Aeronautical weather reports and forecasts. Evaluation of aviation weather reports and forecasts.</td>
</tr>
<tr>
<td>AERO 28</td>
<td>Aircraft and Engines</td>
<td>3</td>
<td>Aeronautical weather reports and forecasts. Evaluation of aviation weather reports and forecasts.</td>
</tr>
<tr>
<td>AERO 29</td>
<td>Federal Aviation Regulations</td>
<td>2</td>
<td>Federal Aviation Regulations that pertain to pilot certification, aircraft maintenance, general operating rules; air traffic control practices and procedures; reporting of aircraft accidents.</td>
</tr>
</tbody>
</table>
improve skills through further instruction and practice.

AERO 41 — Basic Flight Simulator Laboratory .5 Unit
(May be taken for Pass/No Pass only)
27 hours lab
Advisory: AERO 25
Flight simulator training in the IATE PC-ATD simulator in preparation for the instrument rating. Full and partial panel airwork, holding patterns, VOR and ADF orientation, and instrument approach procedures.

AERO 42 — Advanced Flight Simulator Laboratory .5 Unit
(May be taken for Pass/No Pass only)
27 hours lab
Advisory: AERO 30 or AERO 41

AERO 45A — Multi-Engine Turbine Aircraft Operations 3 Units
Not Degree Applicable
54 hours lecture
Advisory: Private Pilot’s Certificate and AERO 30 or Instrument Rating
An introduction to the design features and operational characteristics of a selected multi-engine turbine aircraft utilized in regional airline operations and corporate aviation, with emphasis on aircraft and engine systems.

AERO 45B — Multi-Engine Turbine Aircraft Operations 3 Units
Degree Applicable
54 hours lecture
Advisory: AERO 30 or AERO 41
An introduction to the design features and operational characteristics of a selected multi-engine turbine aircraft utilized in regional airline operations and corporate aviation, with emphasis on aircraft and engine systems.

AERO 48 — Flight Instructor Ground School 3 Units
Not Degree Applicable
54 hours lecture
Advisory: AERO 25 and AERO 30 or Commercial Pilot Certificate with Instrument Rating
The learning process, basic teaching principles, and the application of these principles in teaching student pilots. Analysis of flight maneuvers and instruments. Prepares students for the FAA computerized knowledge tests for Flight Instructors.

AGHE 60 — Medical Nursing and Animal Care 4 Units
Degree Applicable, CSU
54 hours lecture
54 hours lab
Prerequisite: AGHE 60
Animal examination for health and disease conditions in the animal hospital, including sanitation, administration of medicine, emergency treatment, therapeutic techniques, dental prophylaxis, venipuncture, electrocardiography, application of casts, splints and other appliances. Includes diseases, their causes and effects, and immunology of animals.

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

AGHE 62A — Clinical Pathology 4 Units
Degree Applicable, CSU
54 hours lecture
54 hours lab
Prerequisite: AGHE 60
Introduces students to the expansive field of clinical pathology. Topics include hematology, clinical chemistries, internal parasites, immunology, serology and vaginal cytology.

AGHE 62B — Clinical Pathology 4 Units
Degree Applicable, CSU
54 hours lecture
54 hours lab
Prerequisite: AGHE 60
Introduces students to the expansive field of clinical pathology. Topics include bacteriology, clinical chemistry, urea analysis, external parasites and cytology.

AGHE 64 — Veterinary Pharmacology 3 Units
Degree Applicable, CSU
54 hours lecture
Prerequisite: Formal admittance to Advanced Class Status in the Registered Veterinary Technology Program, and completion of MATH 51 or MATH 51B or AGAG 91
Basic concepts in pharmacological chemistry. Pharmaceuticals and biologics commonly used in the maintenance of animal health. Includes generic terminology, abbreviations for prescriptions, labeling requirements, state and federal laws, classification of materials, weights and measures, drug dosage flow rates, pharmacological mathematics and the metric system, side effects and drug interactions.
### COURSE DESCRIPTIONS

**AGHE 65 — Veterinary Radiography**
2 Units  
Degree Applicable, CSU
18 hours lecture  
54 hours lab
Prerequisite: AGU 95 and formal admittance to the Registered Veterinary Technology Program  
Basic concepts and skills of veterinary positioning of canine, feline, avian, reptilian species, and livestock for radiography; processing of the radiograph; radiation safety; basic technique and instrumentation; contrast radiography and ultrasound imaging. Emphasizes performance of x-ray procedures for the veterinary practitioner.

**AGHE 79 — Laboratory Animal Medicine and Care**
3 Units  
Degree Applicable, CSU  
36 hours lecture  
54 hours lab  
Laboratory animal medicine, care and procedures, rules and regulations governing laboratory animals.

**AGHE 83A — Work Experience in Animal Health**
1 to 2 Units  
Degree Applicable  
(May be taken four times for credit)  
(May be taken for Pass/No Pass only)  
75 to 150 hours lab
Prerequisite: Formal admittance in the Registered Veterinary Technology Program. Compliance with Work Experience regulations as designated in the College Catalog. This course is designed to provide majors with actual on-the-job experience in an approved work station which is related to classroom instruction. A minimum of 75 paid clock hours or 60 non-paid clock hours per semester is required for each one unit of credit. It is recommended that the hours per week are equally distributed throughout the semester. Students who repeat this course will improve skills through further instruction and practice.

**AGHE 84B — Applied Animal Health Procedures**
1 Unit  
Degree Applicable  
54 hours lab  
Spring field study course in the collection, handling and analysis of feces, urine and blood samples of pet and domestic animals. Practical experience in applied clinical procedures and techniques, including treatments and minor surgical procedures with domestic farm animals. Experiences with animals will vary due to seasonal changes and different husbandry practices during fall and spring.

**AGHE 85 — Seminar in Registered Veterinary Technology**
1 Unit  
Degree Applicable  
18 hours lecture
Prerequisite: Completion of the Registered Veterinary Technology program. Group study course designed to help students with success on their national and state registration examinations. Course includes exposure to the types of questions encountered in registration examinations, question analysis strategies, and review of important anatomical, physiological, and nursing concepts.

**AGHE 86 — Anatomy and Physiology of Domestic Animals**
4 Units  
Degree Applicable  
54 hours lecture  
54 hours lab
Prerequisite: Formal admittance to the Registered Veterinary Technology Program. Analyzes the body structures and systems, comparing domestic animals commonly found in veterinary medicine. The physiology section will emphasize functions of internal organs and body systems.

**AGHE 86B — Applied Animal Health Procedures**
1 Unit  
Degree Applicable  
54 hours lecture
Spring field study course in the collection, handling and analysis of feces, urine and blood samples of pet and domestic animals. Practical experience in applied clinical procedures and techniques, including treatments and minor surgical procedures with domestic farm animals. Experiences with animals will vary due to seasonal changes and different husbandry practices during fall and spring.

**AGAG 59 — Work Experience in Agriculture**
1 to 4 Units  
Degree Applicable  
75 to 300 hours lab
Prerequisite: Eligibility for ENGL 68  
Concepts of conservation biology for natural resources, including biogeography, biodiversity and extinction, environmental law, and conservation organizations. Emphasis on temperate forest, tropical forest, desert, and grassland ecosystems.

**AGGR 20 — Conservation of Natural Resources**
3 Units  
Degree Applicable  
54 hours lecture
Prerequisite: Eligibility for ENGL 68  
Concepts of conservation biology for natural resources, including biogeography, biodiversity and extinction, environmental law, and conservation organizations. Emphasis on temperate forest, tropical forest, desert, and grassland ecosystems.

**AGAG 1 — Food Production, Land Use and Politics**
3 Units  
Degree Applicable  
54 hours lecture  
(May be taken four times for credit)  
(May be taken for Pass/No Pass only)  
75 to 300 hours lab
Prerequisite: Compliance with Work Experience regulations as designated in the College Catalog. This course is designed to provide Animal Science majors with actual on-the-job experience in an approved work station which is related to classroom instruction. A minimum of 75 paid clock hours or 60 non-paid clock hours per semester is required for each one unit of credit. It is recommended that the hours per week are equally distributed throughout the semester. Students who repeat this course will improve skills through further instruction and practice.

**AGAG 91 — Agricultural Calculations**
3 Units  
Degree Applicable  
54 hours lecture
Prerequisite: Eligibility for MATH 51  
Calculating the proper rates of application of veterinary drugs, fertilizers, irrigation water, farm chemicals and pesticidal materials. Practical field work in calibrating application equipment, plotting production rates and feed conversion, determining proper concentrations and dilutions and standardizing butterfat and solids non-fat.
<table>
<thead>
<tr>
<th>Course Code</th>
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<th>Units</th>
<th>Description</th>
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<tbody>
<tr>
<td>AGAG 99</td>
<td>Special Projects in Agriculture</td>
<td>2</td>
<td>Degree Applicable, CSU</td>
</tr>
<tr>
<td>AGLI 12</td>
<td>Exotic Animal Management</td>
<td>3</td>
<td>Degree Applicable</td>
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<tr>
<td>AGLI 14</td>
<td>Swine Production</td>
<td>3</td>
<td>Degree Applicable, CSU</td>
</tr>
<tr>
<td>AGLI 16</td>
<td>Horse Production</td>
<td>4</td>
<td>Degree Applicable, CSU, UC</td>
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<tr>
<td>AGLI 17</td>
<td>Sheep Production</td>
<td>3</td>
<td>Degree Applicable, CSU</td>
</tr>
<tr>
<td>AGLI 18</td>
<td>Horse Ranch Management</td>
<td>4</td>
<td>Degree Applicable, CSU</td>
</tr>
<tr>
<td>AGLI 19</td>
<td>Horse Hoof Care</td>
<td>2</td>
<td>Degree Applicable, CSU</td>
</tr>
<tr>
<td>AGLI 20</td>
<td>Horse Behavior and Training</td>
<td>2</td>
<td>Degree Applicable, CSU</td>
</tr>
<tr>
<td>AGLI 30</td>
<td>Beef Production</td>
<td>3</td>
<td>Degree Applicable, CSU</td>
</tr>
<tr>
<td>AGLI 34</td>
<td>Livestock Judging and Selection</td>
<td>2</td>
<td>Degree Applicable, CSU</td>
</tr>
<tr>
<td>AGLI 96</td>
<td>Animal Sanitation and Disease Control</td>
<td>3</td>
<td>Degree Applicable, CSU</td>
</tr>
<tr>
<td>AGLI 97</td>
<td>Artificial Insemination of Livestock</td>
<td>2</td>
<td>Degree Applicable, CSU</td>
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<tr>
<td>AGOR 1</td>
<td>Horticultural Science</td>
<td>3</td>
<td>Degree Applicable, CSU</td>
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<tr>
<td>AGOR 2</td>
<td>Plant Propagation/Greenhouse Management</td>
<td>3</td>
<td>Degree Applicable, CSU</td>
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<tr>
<td>AGOR 4</td>
<td>Park Management</td>
<td>3</td>
<td>Degree Applicable, CSU</td>
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<tr>
<td>AGOR 5</td>
<td>Park Facilities</td>
<td>3</td>
<td>Degree Applicable, CSU</td>
</tr>
<tr>
<td>AGOR 13</td>
<td>Landscape Design</td>
<td>3</td>
<td>Degree Applicable, CSU</td>
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</table>

**AGRICULTURE: LIVESTOCK PRODUCTION**

- Care and management of exotic and alternative livestock species with emphasis on identification, health maintenance, handling techniques, nutrition and reproduction. Includes analysis of industry trends and principal marketing uses of exotic animals.
- A study of the various types of swine enterprises and the ways and means of entering them. Swine management, including handling, feeding, breeding, farrowing, butchering, and marketing. Practical skills are taught using the college farm.
- Selection, utilization, and management of the light horse emphasizing recreational aspects of the modern horse. Laboratory work includes experience in the care of horse and tack.
- A study of the various types of sheep enterprises and the ways and means of entering them. Sheep management, sheep handling, feeding, shearing, breeding, lambing, and marketing. Practical skills are taught on the school farm and sheep farms in the area.

**AGRICULTURE: ORNAMENTAL HORTICULTURE**

- Theory and application of artificial insemination of domestic animals, including semen evaluation and processing, heat synchronization, and pregnancy diagnosis.
- Basic horticulture skills and techniques for use in gardening, nursery, and landscape applications. Emphasis on propagation, cultural practices, and the study of plant relationships, structure, growth and development.
- 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.
- Management and operation of municipal park departments. Includes the development of budgets, purchasing, park policies, planning and scheduling.
- 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.
**Course Descriptions**

**AGOR 15 — Interior Landscaping**  
3 Units  
Degree Applicable  
(May be taken for option of letter grade or Pass/No Pass)  
54 hours lecture  
Design, installation and maintenance practices used in interior landscaping. Includes identification, culture and care of plants suitable for interior use. Field trip required.

**AGOR 24 — Integrated Pest Management**  
3 Units  
Degree Applicable, CSU  
36 hours lecture  
54 hours lab  
Identifies common agricultural pests in Southern California and analyzes pest management; retail displays, advertising and customer relationships; and proper use of fertilizers, insecticides, fungicides, herbicides and pesticides.

**AGOR 29 — Ornamental Plants - Herbaceous**  
3 Units  
Degree Applicable, CSU, UC  
36 hours lecture  
54 hours lab  
Identification, growth habits, culture and ornamental use of landscape annuals, biennials, perennials, ferns, indoor plants, groundcovers and vines adapted to climates of California. Plants emphasized will come from the California Association of Nurserymen (CAN) and California Landscape Contractors Association (CLCA) certification test plant lists.

**AGOR 30 — Ornamental Plants - Trees and Woody Shrubs**  
3 Units  
Degree Applicable, CSU, UC  
36 hours lecture  
54 hours lab  
Identification, growth habits, culture and ornamental use of landscape trees and shrubs adapted to climates of California. Plants emphasized will come from the California Association of Nurserymen (CAN) and California Landscape Contractors Association (CLCA) certification test plant lists.

**AGOR 32 — Landscaping and Nursery Management**  
3 Units  
Degree Applicable, CSU  
36 hours lecture  
54 hours lab  
Advisory: AGOR 3  
Operation and management of wholesale and retail nurseries. Includes site location and layout of areas; greenhouse management; soil mixes and proper use of fertilizers, insecticides, fungicides, herbicides and growth regulators; irrigation; mechanization; financing; personnel management; retail displays, advertising and customer relationships; federal, state and local laws and regulations. Field trips are included.

**AGOR 39 — Turf Grass Production and Management**  
3 Units  
Degree Applicable, CSU  
36 hours lecture  
54 hours lab  
Introduction to cultivation, maintenance and management of turfgrasses utilized for athletic fields, golf courses, parks, cemeteries, commercial and residential lawns. Identification, installation, cultural requirements and maintenance practices are emphasized. Field trips required.

**AGOR 40 — Sports Turf Management**  
3 Units  
Degree Applicable  
(May be taken for option of letter grade or Pass/No Pass)  
36 hours lecture  
54 hours lab  
Prepares students to work in the sports turf industry. Emphasizes turf cultural techniques used in sports turf management. Includes turf surfaces used on baseball, football, soccer, tennis, golf courses, driving ranges and other sports fields in both professional and amateur sports. Field trips included.

**AGOR 50 — Soil Science and Management**  
3 Units  
Degree Applicable, CSU, UC  
36 hours lecture  
54 hours lab  
Principles of proper soil management to optimize plant growth, including management of air, water, nutrients and organic matter. Physical and chemical properties of soil that govern soil reactions and interactions. Field trips included.

**AGOR 51 — Tractor and Landscape Equipment Operations**  
3 Units  
Degree Applicable, CSU  
(May be taken for option of letter grade or Pass/No Pass)  
36 hours lecture  
54 hours lab  
Selection, operation, repair and maintenance of power equipment used in the landscape industry. Includes 2WD and 4WD tractors, skid loader, skid steer loader, backhoe, lawn mowers, edgers, weed eaters, blower/vacuum, rototillers, chainsaws, spraying equipment and all-terrain vehicles. Laboratory includes actual hands-on applications of this equipment.

**AGOR 52 — Hydraulics**  
3 Units  
Degree Applicable, CSU  
36 hours lecture  
54 hours lab  
Operation, maintenance, and repair of hydraulic systems. Emphasis: pumps, valves, cylinders, flow control, reservoirs, lines, motors, and hydrostatic transmissions. Laboratory provides hands-on application of hydraulic systems.

**AGOR 53 — Small Engine Repair I**  
3 Units  
Degree Applicable, CSU  
(May be taken for option of letter grade or Pass/No Pass)  
36 hours lecture  
54 hours lab  
Principles and repair of small engines used in landscape, industrial and agricultural applications. Includes repairs of lawnmowers, chainsaws, small engines used in landscape, industrial and agricultural applications. Includes repairs of lawn mowers, chainsaws, 2-cycle engine, 4-cycle engine, spraying equipment, all-terrain vehicles, and other related gas-powered equipment.

**AGOR 54 — Small Engine Repair II**  
3 Units  
Degree Applicable, CSU  
(May be taken for option of letter grade or Pass/No Pass)  
36 hours lecture  
54 hours lab  
Advanced repair and maintenance of mid-horsepower gasoline and diesel engines. Multi-cylinder air- and water-cooled engines used in landscape, industrial and agricultural applications. Repair of ride mowers, generator engines, air compressor engines, 2-cycle and 4-cycle engines, spraying equipment, all-terrain vehicles, and other related gas-powered equipment. Students gain actual hands-on experience maintaining and overhauling engines.

**AGOR 55 — Diesel Engine Repair**  
3 Units  
Degree Applicable, CSU  
(May be taken for option of letter grade or Pass/No Pass)  
36 hours lecture  
54 hours lab  
Repair and maintenance of diesel engines used to power industrial, landscape and agricultural equipment. Students gain actual hands-on experience maintaining, servicing, and repairing diesel engines.

**AGOR 56 — Engine Diagnostics**  
3 Units  
Degree Applicable, CSU  
(May be taken for option of letter grade or Pass/No Pass)  
36 hours lecture  
54 hours lab  
Analysis and evaluation of tractor power failure. Students gain actual experience in the proper diagnostic procedures of power equipment. Service, maintenance and repair of tractor electrical systems: electrical wiring, voltage regulators, generators, alternators, switches, gauges, batteries and test equipment.

**AGOR 57 — Power Train Repair**  
3 Units  
Degree Applicable  
(May be taken for option of letter grade or Pass/No Pass)  
36 hours lecture  
54 hours lab  
Service, maintenance, and repair of power trains. Students gain experience with clutches, transmissions, differentials, power take-off units, and final drive used to transmit power on tractors.
### AGOR 62 — Landscape Irrigation - Design and Installation 3 Units
Degree Applicable, CSU
(May be taken for option of letter grade or Pass/No Pass)
36 hours lecture
54 hours lab
Design and application of turf and ornamental irrigation systems. Design techniques, sprinkler system components and hydraulic principles used in nursery management, interior design, residential and commercial landscaping. Special emphasis is given to water conservation incorporating controlled flow technologies.

### AGOR 63 — Landscape Irrigation Systems Management 3 Units
Degree Applicable
(May be taken for option of letter grade or Pass/No Pass)
36 hours lecture
54 hours lab
Advisory: Eligibility for ENGL 68
A systematic approach to water conservation in the landscape. Repair techniques that will allow a current system to efficiently operate to its initial design. Trouble shooting procedures including field testing of valves and controllers. Irrigation efficiency test will be incorporated to demonstrate proper methods of water audits.

### AGOR 64 — Landscape Irrigation - Drip and Low Volume 3 Units
Degree Applicable
(May be taken for option of letter grade or Pass/No Pass)
36 hours lecture
54 hours lab
Conservation of water in the landscape by utilization of drip and low-flow irrigation practices. Design, operation and maintenance of drip and low-flow irrigation systems, including determination of irrigation requirements, selection of emitters and low-flow devices, and uniformity of water distribution. Students will gain hands-on experience in design and installation techniques.

### AGOR 65 — 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
Advisory: Eligibility for ENGL 68
Fundamentals of construction techniques and tools used in landscaping. Students will gain skills in construction projects that include utilities (gas, water, electricity), woodworking, masonry and surveying techniques applied to landscaping.

### AGOR 66 — Landscape Hardscape Applications 3 Units
Degree Applicable
54 hours lab
Landscape construction pertaining to all hardscape features. Course covers estimation and installation of fences, walks, planters, patios, lighting, barbecues, gazebos, decks, ponds, spas, fountains and pools. Students will gain hands-on experience in the laboratory activities.

### AGOR 67 — 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 it pertains to Landscape Construction. Information covered will be helpful for the licensing exam administered by the state of California C-27 classification. Students will gain hands-on experience of contracting and running a business.

### AGOR 68 — Urban Arboriculture 3 Units
Degree Applicable
54 hours lecture
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 69 — Work Experience in Nursery Operations 1 to 4 Units
Degree Applicable
(May be taken four times for credit)
Prerequisite: Compliance with Work Experience regulations as designated in the College Catalog
This course is designed to provide majors with actual on-the-job experience in an approved work station which is related to classroom instruction. A minimum of 75 paid clock hours or 60 non-paid clock hours per semester is required for each one unit of credit. It is recommended that the hours per week are equally distributed throughout the semester. Students who repeat this course will improve skills through further instruction and practice.

### AGOR 70 — Pet Shop Management 3 Units
Degree Applicable
54 hours lecture
The pet industry, pet shop operations and the economic aspects of the retail/wholesale pet business. Includes organization and operation of pet shops, animal care practices, and sound business management practices.

### AGOR 71 — Canine Management 3 Units
Degree Applicable, CSU
36 hours lecture
54 hours lab
Selection, feeding, housing, breeding and management of dogs, including commercial aspects of the dog as a domestic pet. Laboratory work will include practical experience in the handling and grooming of dogs. May include field trips.

### AGOR 72 — Feline Management 3 Units
Degree Applicable, CSU
54 hours lecture
Advisory: Eligibility for ENGL 68
Care and management of cats. Includes breed identification and characteristics, grooming, showing, nutrition, practical care, behavior, breeding, and housing.

### AGOR 73 — Tropical and Coldwater Fish Management 2 Units
Degree Applicable
36 hours lecture
Advisory: Eligibility for ENGL 68
Care and keeping of marine and freshwater aquarium fishes, plants, and invertebrates. Includes guidance on setting up aquariums, choosing compatible species, feeding, health care, breeding and raising fish.

### AGOR 74 — Reptile Management 2 Units
Degree Applicable
36 hours lecture
Advisory: Eligibility for ENGL 68
Care and keeping of reptiles and amphibians, including snakes, lizards, turtles, tortoises, newts, salamanders and frogs. Includes identification and characteristics of reptiles commonly kept as pets. Guidance regarding the housing, feeding, health maintenance, breeding and raising of reptiles will be offered.

### AGOR 75 — Urban Arboriculture 3 Units
Degree Applicable
54 hours lecture
Care and management of ornamental trees. Includes pruning techniques, fruit tree care, bracing, cabling, and pest control. Safe practices in the use of equipment including the use of ropes, chippers, boom trucks, chain saws, and identification and evaluation of common trees. Prepares students for the tree worker and arborist certification exams.

### AGOR 76 — Aviculture - Cage and Aviary Birds 3 Units
Degree Applicable
54 hours lecture
Advisory: Eligibility for ENGL 68
Presents cage and aviary birds marketed in the wholesale and retail pet trade, including identification, nutrition, breeding, disease prevention and control, aviary construction and providing the proper environment. Includes information on psittacines, soft bills, finches, game birds, poultry and ornamental waterfowl.
## Course Descriptions

### AIR CONDITIONING AND REFRIGERATION

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
<th>Degree Applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>AIRC 10</td>
<td>Technical Mathematics in Air Conditioning and Refrigeration</td>
<td>2 Units</td>
<td>Degree Applicable</td>
</tr>
<tr>
<td>AIRC 11</td>
<td>Welding for Air Conditioning and Refrigeration</td>
<td>2 Units</td>
<td>Degree Applicable</td>
</tr>
<tr>
<td>AIRC 12</td>
<td>Air Conditioning Codes and Standards</td>
<td>3 Units</td>
<td>Degree Applicable</td>
</tr>
<tr>
<td>AIRC 20</td>
<td>Refrigeration Fundamentals</td>
<td>3 Units</td>
<td>Degree Applicable</td>
</tr>
<tr>
<td>AIRC 25</td>
<td>Electrical Fundamentals for Air Conditioning and Refrigeration</td>
<td>4 Units</td>
<td>Degree Applicable</td>
</tr>
<tr>
<td>AIRC 26A</td>
<td>Heat Pump Fundamentals</td>
<td>1.5 Units</td>
<td>Degree Applicable</td>
</tr>
<tr>
<td>AIRC 26B</td>
<td>Gas Heating Fundamentals</td>
<td>2 Units</td>
<td>Degree Applicable</td>
</tr>
<tr>
<td>AIRC 30</td>
<td>Heat Load Calculations</td>
<td>3 Units</td>
<td>Degree Applicable</td>
</tr>
<tr>
<td>AIRC 31</td>
<td>Commercial Electrical for Air Conditioning and Refrigeration</td>
<td>4 Units</td>
<td>Degree Applicable</td>
</tr>
<tr>
<td>AIRC 32A</td>
<td>Air Properties and Measurement</td>
<td>1.5 Units</td>
<td>Degree Applicable</td>
</tr>
<tr>
<td>AIRC 32B</td>
<td>Air Distribution Systems</td>
<td>1.5 Units</td>
<td>Degree Applicable</td>
</tr>
<tr>
<td>AIRC 33</td>
<td>Advanced Mechanical Refrigeration</td>
<td>4 Units</td>
<td>Degree Applicable</td>
</tr>
<tr>
<td>AIRC 34</td>
<td>Pneumatic Controls</td>
<td>2 Units</td>
<td>Degree Applicable</td>
</tr>
<tr>
<td>AIRC 35</td>
<td>Building Automation Systems</td>
<td>4 Units</td>
<td>Degree Applicable</td>
</tr>
<tr>
<td>AIRC 36</td>
<td>Work Experience in Air Conditioning</td>
<td>1 to 4 Units</td>
<td>Not Degree Applicable</td>
</tr>
</tbody>
</table>

### Course Details

- **AIRC 26A — Heat Pump Fundamentals**: 27 hours lecture. Theory, operation, and application of heat pump systems used in residential and light commercial heating installations including the heat pump refrigeration cycle, reversing valves, defrost methods, supplemental heat, balance point, air flow, and heat pump thermostats. Advisory: AIRC 25 taken prior.
- **AIRC 26B — Gas Heating Fundamentals**: 36 hours lecture. Theory, operation, and application of natural gas and propane heating systems used in residential and light commercial heating installations including the properties of fuel gases, gas combustion, furnace construction, pilot proving devices and ignition systems. Advisory: AIRC 12, AIRC 25 taken prior.
- **AIRC 30 — Heat Load Calculations**: 54 hours lecture. Heat load factors and charts will be explored, developed and applied to the heat loss and gain of a residential, refrigeration and commercial building. Advisory: AIRC 20 taken prior.
- **AIRC 31 — Commercial Electrical for Air Conditioning and Refrigeration**: 54 hours lecture. Four-phase motor, timers, sequencers, starting methods and troubleshooting of three phase systems. Advisory: AIRC 25 taken prior. Electrical control of commercial air conditioning and refrigeration equipment emphasizing time clocks, defrost, three phase transformers, three phase motors, timers, sequencers, starting methods and troubleshooting of three phase systems.
- **AIRC 32A — Air Properties and Measurement**: 27 hours lecture. 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. Advisory: AIRC 20 taken prior.
- **AIRC 32B — Air Distribution Systems**: 27 hours lecture. Designed as a continuation of AIRC 32A and explores airside equipment and duct design applied to built-up and unitary air distribution systems. Advisory: AIRC 20, AIRC 30, AIRC 32A taken prior.

**Prerequisites and Advisory**: Approval of college Work Experience supervisor and college Work Experience program. This course is designed to combine actual job experience in Air Conditioning and Refrigeration with related classroom instruction. This course is designed to combine actual job experience in Air Conditioning and Refrigeration with related classroom instruction. The course is designed to be a continuation of AIRC 32A and explores airside equipment and duct design applied to built-up and unitary air distribution systems. The course is designed to be a continuation of AIRC 32A and explores airside equipment and duct design applied to built-up and unitary air distribution systems. The course is designed to be a continuation of AIRC 32A and explores airside equipment and duct design applied to built-up and unitary air distribution systems.
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<tr>
<th>Course Code</th>
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<th>Units</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AIRT 41</td>
<td>Aircraft Recognition and Performance</td>
<td>2</td>
<td>Degree Applicable, CSU&lt;br&gt;36 hours lecture&lt;br&gt;Advisory: AERO 23&lt;br&gt;Recognition of distinctive identification features of operational aircraft and their performance characteristics. Classification of aircraft by Federal Aviation Administration designations.</td>
</tr>
<tr>
<td>AIRT 42</td>
<td>Air Traffic Control Environment</td>
<td>3</td>
<td>Degree Applicable, CSU&lt;br&gt;54 hours lecture&lt;br&gt;Advisory: AERO 23 and TRAN 17&lt;br&gt;Aircraft operation in the National Airspace System. Control tower operations, terminal and enroute radar control. Coordination and control within an ATC team environment. Radio communication techniques and phrasing. Non-radars control and separation procedures.</td>
</tr>
<tr>
<td>AIRT 43</td>
<td>Air Traffic Control Team Skills</td>
<td>1.5</td>
<td>Not Degree Applicable&lt;br&gt;27 hours lecture&lt;br&gt;Advisory: AIRT 42&lt;br&gt;Leadership skills for aviation professionals, with emphasis on air traffic control scenarios. Control tower simulations, including communication and conflict resolution. Coordination and control of air traffic utilizing FAA standards and inter-personal team skills.</td>
</tr>
<tr>
<td>AIRT 45</td>
<td>Flight Services</td>
<td>3</td>
<td>Degree Applicable, CSU&lt;br&gt;54 hours lecture&lt;br&gt;Advisory: AERO 23, AERO 29&lt;br&gt;Air traffic control procedures utilized by Flight Service Stations in providing flight assistance and communication services. Air traffic pilot briefings, emergency procedures, flight handling, search and rescue, and introduction to data transmission procedures and services.</td>
</tr>
<tr>
<td>AIRT 47</td>
<td>Work Experience in Air Traffic Control</td>
<td>1</td>
<td>Not Degree Applicable&lt;br&gt;(May be taken four times for credit)&lt;br&gt;(May be taken for Pass/No Pass only)&lt;br&gt;75 hours lab&lt;br&gt;Prerequisite: Compliance with Work Experience regulations as designated in the College Catalog.&lt;br&gt;On-the-job experience in an approved FAA work station. A minimum of 75 paid clock hours or 60 non-paid clock hours per semester is required for each one unit of credit. It is recommended that the hours per week are equally distributed throughout the semester. Students who repeat this course will improve skills through further instruction and practice.</td>
</tr>
<tr>
<td>AIRT 51</td>
<td>Air Traffic Control Laboratory</td>
<td>1</td>
<td>Degree Applicable&lt;br&gt;54 hours lab&lt;br&gt;Advisory: AERO 23, AERO 26, AERO 29&lt;br&gt;Concepts, procedures, and skills related to air traffic control. Microphone technique, voice control, phrasing, facility and interfacility coordination, strip markings, airport traffic control, weather observing, and control tower functions.</td>
</tr>
<tr>
<td>AIRT 55</td>
<td>Terminal Radar Approach Control Laboratory</td>
<td>1</td>
<td>Degree Applicable&lt;br&gt;(May be taken four times for credit)&lt;br&gt;54 hours lab&lt;br&gt;Advisory: AIRT 51 and AERO 30 taken prior or concurrently&lt;br&gt;Simulation of a radar approach control facility concentrating on approach and departure procedures using appropriate phrasing, flight progress strip markings and radar separation standards. Students who repeat this course will improve skills through further instruction and practice.</td>
</tr>
<tr>
<td>AIRM 65A</td>
<td>Aircraft Powerplant Maintenance Technology</td>
<td>13</td>
<td>Degree Applicable, CSU&lt;br&gt;168 hours lecture&lt;br&gt;376 hours lab&lt;br&gt;Theory and overhaul of aircraft reciprocating and turbine powerplants. Approved and required for the FAA powerplant certification and Airframe and Aircraft Powerplant Maintenance Technology major.</td>
</tr>
<tr>
<td>AIRM 65B</td>
<td>Aircraft Powerplant Maintenance Technology</td>
<td>13</td>
<td>Degree Applicable, CSU&lt;br&gt;108 hours lecture&lt;br&gt;376 hours lab&lt;br&gt;Theory of flight. Aircraft structures including inspection, maintenance, repair, and alteration. Approved and required for the FAA airframe certification and Airframe and Aircraft Powerplant Maintenance Technology major.</td>
</tr>
<tr>
<td>AIRM 66A</td>
<td>Airframe Maintenance Technology</td>
<td>13</td>
<td>Degree Applicable, CSU&lt;br&gt;108 hours lecture&lt;br&gt;376 hours lab&lt;br&gt;Aircraft systems and components. Approved and required for the FAA and required airframe certification and the Airframe and Aircraft Powerplant Maintenance Technology major.</td>
</tr>
<tr>
<td>AIRM 66B</td>
<td>Airframe Maintenance Technology</td>
<td>13</td>
<td>Degree Applicable, CSU&lt;br&gt;108 hours lecture&lt;br&gt;376 hours lab&lt;br&gt;Aircraft systems and components. Approved and required for the FAA and required airframe certification and the Airframe and Aircraft Powerplant Maintenance Technology major.</td>
</tr>
</tbody>
</table>
## Course Descriptions

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<tr>
<th>Course Code</th>
<th>Title</th>
<th>Units</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AIRM 65 A</td>
<td>Aircraft Maintenance Technology - Work Experience</td>
<td>2 Units</td>
<td>(May be taken for Pass/No Pass only) 90 hours lab Prerequisite: AIRM 65 A and AIRM 65 B or AIRM 66 A and AIRM 66 B Combines aircraft maintenance experience in addition to classroom instruction for college credit. Two units of credit will be earned as a result of 120 unpaid or 150 paid work hours. The employer/evaluator will have the student perform aircraft maintenance work under direct supervision at a maintenance facility.</td>
</tr>
<tr>
<td>AIRM 80</td>
<td>Lab Studies in Aircraft Maintenance Technology</td>
<td>.5 to 1 Unit</td>
<td>(May be taken for Pass/No Pass only) 27 to 54 hours lab Advisory: AIRM 65 A/B, or AIRM 66 A/B, or AIRM 90-93 A/B, or AIRM 95-98 A/B, or equivalent Additional lab instruction for students needing FAA required hours to complete a training certificate or required remediation of program modules or completion of laboratory assignments. Students who repeat this course will improve skills through further instruction and practice.</td>
</tr>
<tr>
<td>AIRM 70 A</td>
<td>Airframe Maintenance Technology</td>
<td>3 Units</td>
<td>72 hours lab Advisory: AIRM 70 A, AIRM 70 B, AIRM 71, AIRM 72, AIRM 73 A FAA approved course covering aircraft flight, flight control and construction methods and procedures.</td>
</tr>
<tr>
<td>AIRM 70 B</td>
<td>Airframe Maintenance Technology</td>
<td>3 Units</td>
<td>72 hours lab Advisory: AIRM 70 A, AIRM 70 B, AIRM 71, AIRM 72, AIRM 73 Aircraft structural designs, station numbers, aviation nomenclature and definitions. Approved by the FAA and required for the Airframe and Aircraft Powerplant Maintenance Technology Major.</td>
</tr>
<tr>
<td>AIRM 90 A</td>
<td>Airframe Maintenance Technology</td>
<td>3 Units</td>
<td>72 hours lab Advisory: AIRM 70 A, AIRM 70 B, AIRM 71, AIRM 72, AIRM 73 Aircraft wood structures, their coverings and finishes. Approved by the FAA and required for the Airframe and Aircraft Powerplant Maintenance Technology Major.</td>
</tr>
<tr>
<td>AIRM 91 B</td>
<td>Airframe Maintenance Technology</td>
<td>3 Units</td>
<td>36 hours lecture 72 hours lab Advisory: AIRM 70 A, AIRM 70 B, AIRM 71, AIRM 72, AIRM 73 Metals and composite materials used in aircraft construction, maintenance, and repair. Approved by the FAA and required for the Airframe and Aircraft Powerplant Maintenance Technology Major.</td>
</tr>
<tr>
<td>AIRM 92 A</td>
<td>Airframe Maintenance Technology</td>
<td>3 Units</td>
<td>36 hours lecture 72 hours lab Advisory: AIRM 70 A, AIRM 70 B, AIRM 71, AIRM 72, AIRM 73 Aircraft hydraulic and pneumatic power systems, landing gear and wheel and brake systems. FAA approved. Approved by the FAA and required for the Airframe and Aircraft Powerplant Maintenance Technology Major.</td>
</tr>
<tr>
<td>AIRM 92 B</td>
<td>Airframe Maintenance Technology</td>
<td>3 Units</td>
<td>36 hours lecture 72 hours lab Advisory: AIRM 70 A, AIRM 70 B, AIRM 71, AIRM 72, AIRM 73 Aircraft warning systems, aircraft instrument systems and aircraft fuel storage and transfer systems. Approved by the FAA and required for the Airframe and Aircraft Powerplant Maintenance Technology Major.</td>
</tr>
<tr>
<td>AIRM 93 A</td>
<td>Airframe Maintenance Technology</td>
<td>3 Units</td>
<td>36 hours lecture 72 hours lab Advisory: AIRM 70 A, AIRM 70 B, AIRM 71, AIRM 72, AIRM 73 A FAA approved course covering aircraft cabin heating and cooling, communication and navigation systems, and ice and rain control systems in small and large aircraft.</td>
</tr>
<tr>
<td>AIRM 93 B</td>
<td>Airframe Maintenance Technology</td>
<td>3 Units</td>
<td>36 hours lecture 72 hours lab Advisory: AIRM 70 A, AIRM 70 B, AIRM 71, AIRM 72, AIRM 73 A FAA approved course covering aircraft cabin heating and cooling, communication and navigation systems, and ice and rain control systems in small and large aircraft.</td>
</tr>
<tr>
<td>AIRM 94 A</td>
<td>Airframe Maintenance Technology</td>
<td>3 Units</td>
<td>36 hours lecture 72 hours lab Advisory: AIRM 70 A, AIRM 70 B, AIRM 71, AIRM 72, AIRM 73 Aircraft fire detection and suppression systems. Aircraft inspection requirements and procedures. Approved by the FAA and required for the Airframe and Aircraft Powerplant Maintenance Technology Major.</td>
</tr>
<tr>
<td>AIRM 95 A</td>
<td>Aircraft Powerplant Maintenance Technology</td>
<td>3 Units</td>
<td>36 hours lecture 72 hours lab Advisory: AIRM 70 A, AIRM 70 B, AIRM 71, AIRM 72, AIRM 73 A FAA approved course covering piston engine overhaul, inspection, and troubleshooting procedures.</td>
</tr>
<tr>
<td>AIRM 95 B</td>
<td>Aircraft Powerplant Maintenance Technology</td>
<td>3 Units</td>
<td>36 hours lecture 72 hours lab Advisory: AIRM 70 A, AIRM 70 B, AIRM 71, AIRM 72, AIRM 73 FAA approved course covering piston engine overhaul, inspection, and troubleshooting procedures.</td>
</tr>
<tr>
<td>AIRM 96 A</td>
<td>Aircraft Powerplant Maintenance Technology</td>
<td>3 Units</td>
<td>36 hours lecture 72 hours lab Advisory: AIRM 70 A, AIRM 70 B, AIRM 71, AIRM 72, AIRM 73 Aircraft turbine engine history, construction, thrust formulas and turbine engine types. Approved by the FAA and required for the Airframe and Aircraft Powerplant Maintenance Technology Major. Required for FAA certification.</td>
</tr>
<tr>
<td>AIRM 96 B</td>
<td>Aircraft Powerplant Maintenance Technology</td>
<td>3 Units</td>
<td>36 hours lecture 72 hours lab Advisory: AIRM 70 A, AIRM 70 B, AIRM 71, AIRM 72, AIRM 73 Aircraft turbine engine history, construction, thrust formulas and turbine engine types. Approved by the FAA and required for the Airframe and Aircraft Powerplant Maintenance Technology Major. Required for FAA certification.</td>
</tr>
<tr>
<td>AIRM 97 A</td>
<td>Aircraft Powerplant Maintenance Technology</td>
<td>3 Units</td>
<td>36 hours lecture 72 hours lab Advisory: AIRM 70 A, AIRM 70 B, AIRM 71, AIRM 72, AIRM 73 Propeller theory, nomenclature, application, constant speed devices, and propeller controls. Approved by the FAA and required for the Airframe and Aircraft Powerplant Maintenance Technology Major. Required for FAA certification.</td>
</tr>
<tr>
<td>AIRM 97 B</td>
<td>Aircraft Powerplant Maintenance Technology</td>
<td>3 Units</td>
<td>36 hours lecture 72 hours lab Advisory: AIRM 70 A, AIRM 70 B, AIRM 71, AIRM 72, AIRM 73 Propeller theory, nomenclature, application, constant speed devices, and propeller controls. Approved by the FAA and required for the Airframe and Aircraft Powerplant Maintenance Technology Major. Required for FAA certification.</td>
</tr>
<tr>
<td>AIRM 98 A</td>
<td>Aircraft Powerplant Maintenance Technology</td>
<td>3 Units</td>
<td>36 hours lecture 72 hours lab Advisory: AIRM 70 A, AIRM 70 B, AIRM 71, AIRM 72, AIRM 73 Reciprocating engine and turbine engine fuels, fuel metering devices, and system operation. Approved by the FAA and required for the Airframe and Aircraft Powerplant Maintenance Technology Major.</td>
</tr>
</tbody>
</table>

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**122 2009-10 Mt. San Antonio College Catalog**
### AIRM 98A — Aircraft Powerplant Maintenance Technology 3 Units

36 hours lecture
72 hours lab
Advisory: AIRM 70A, AIRM 70B, AIRM 71, AIRM 72, AIRM 73
Reciprocating and turbine engine ignition system theory and operation. Approved by the FAA and required for the Airframe and Aircraft Powerplant Maintenance Technology major.

### AIRM 98B — Aircraft Powerplant Maintenance Technology 3 Units

36 hours lecture
72 hours lab
Advisory: AIRM 70A, AIRM 70B, AIRM 71, AIRM 72, AIRM 73
Reciprocating and turbine engine lubricants and lubricating systems. Approved by the FAA and required for the Airframe and Aircraft Powerplant Maintenance Technology major.

### ALCOHOL DRUG COUNSELING

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<tr>
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<tr>
<td>AD 1</td>
<td>Alcohol/Drug Dependency</td>
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<td>AD 2</td>
<td>Physiological Effects of Alcohol/Drugs</td>
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<td>AD 3</td>
<td>Chemical Dependency: Intervention, Treatment and Recovery</td>
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<td>AD 4</td>
<td>Issues in Domestic Violence</td>
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<td>AD 5</td>
<td>Chemical Dependency: Prevention and Education</td>
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<tr>
<td>AD 6</td>
<td>Dual Diagnosis</td>
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<td>AD 7</td>
<td>Group Process and Leadership</td>
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<td>AD 8</td>
<td>Family Counseling</td>
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<td>AD 9</td>
<td>Client Record and Documentation</td>
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<td>AD 10</td>
<td>Techniques of Intervention</td>
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<td>AD 11</td>
<td>Internship/Seminar</td>
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<td>AD 12</td>
<td>Advanced Internship/Seminar</td>
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<td>AD 14</td>
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<td>AD 15</td>
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<td>AD 16</td>
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<td>AD 17</td>
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<td>AD 19</td>
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<td>AD 20</td>
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<td>AD 21</td>
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<td>AD 22</td>
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<td>AD 24</td>
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<td>AD 25</td>
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### AMERICAN LANGUAGE

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<td>AMLA 21S</td>
<td>Accent Reduction</td>
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<tr>
<td>AMLA 22S</td>
<td>American Language</td>
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<tr>
<td>AMLA 23S</td>
<td>American Language Formal Speaking</td>
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### COURSE DESCRIPTIONS

- **AD 5 — Chemical Dependency: Prevention and Education**: Reviews and examines drug prevention effectiveness, at both the private and public level. Approaches personal attitudes, past and present, and their influence on societal norms. Evaluates current prevention programs and the necessary steps for developing, funding, and managing a program.
- **AD 6 — Dual Diagnosis**: 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 7 — Group Process and Leadership**: Introduces the theory and practice of group counseling, the group process and dynamics of group interaction.
- **AD 8 — Family Counseling**: Introduces the theory and practice of family counseling. Topics include, family systems and dynamics, effects of chemical dependency, and counseling techniques.
- **AD 9 — Client Record and Documentation**: Identify documentation methods required by government regulatory bodies in clinical records. Emphasis on biopsychosocial history.
- **AD 10 — Techniques of Intervention**: Study and practice techniques used for crisis and beginning counseling, intake interviewing and referral. Using an experiential format, participants will learn and practice skills in attentive listening, recognizing and responding to different levels of client communication.
- **AD 11 — Internship/Seminar**: 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 12 — Advanced Internship/Seminar**: The second of a two-semester sequence in which the student applies the values, concepts and skills gained from previous courses to the actual process of helping chemically dependent persons.

### AMERICAN LANGUAGE

- **AMLA 21S — Accent Reduction**: Pronunciation and listening for non-native speakers with emphasis on articulation, stress and intonation patterns, and listening. Students will analyze individual pronunciation strengths and weaknesses.
- **AMLA 22S — American Language**: Enhances ability of non-native speakers to listen effectively and speak formally in a variety of situations. Emphasis is on note-taking, outlining, organizing speeches, and verbal articulation of ideas.
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<tr>
<td>AMLA 24 — Idiomatic English</td>
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<td>AMLA 31R — American Language Basic Reading</td>
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<td>AMLA 32R — American Language Intermediate Reading</td>
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<td>AMLA 41W — American Language Basic Writing</td>
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<td>AMLA 42W — American Language Intermediate Writing</td>
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<td>AMLA 43W — American Language Advanced Writing</td>
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<td>AMLA 56 — American Language Nouns and Articles</td>
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<td>AMLA 57 — American Language Verb Review I</td>
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<td>AMLA 58 — American Language Verb Review II</td>
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<td>AMLA 59 — American Language Prepositions</td>
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<td>AMLA 60 — American Language Verb Review III</td>
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<td>AMLA 61 — American Language Word Forms</td>
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**ANATOMY AND PHYSIOLOGY**

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<tr>
<td>ANAT 10A — Introductory Human Anatomy</td>
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<tr>
<td>ANAT 10B — Introductory Human Physiology</td>
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<td>ANAT 35 — Human Anatomy</td>
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<tr>
<td>ANAT 36 — Human Physiology</td>
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<td>CAN BIOL 12</td>
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<td>CAN BIOL SEQ B</td>
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<tr>
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<td>CAN BIOL 10</td>
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<td>CAN BIOL 12</td>
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<tr>
<td>CAN BIOL SEQ B</td>
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<tr>
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<td>CAN BIOL 12</td>
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<td>CAN BIOL SEQ B</td>
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<td>CAN BIOL SEQ B</td>
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### ANTHROPOLOGY

**Course Descriptions**

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<tr>
<td>ANTH 3</td>
<td>Archaeology (CAN ANTH06)</td>
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<td>Degree Applicable, CSU</td>
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<td>ANTH 5</td>
<td>Principles of Cultural Anthropology (CAN ANTH04)</td>
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<td>ANTH 99</td>
<td>Special Projects in Anthropology</td>
<td>2</td>
<td>Degree Applicable, CSU</td>
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**ANTH 1 — Biological Anthropology**

#### 3 Units

- **Degree Applicable, CSU**
- **Prerequisite:** Eligibility for ENGL 68
- **54 hours lecture**
- The evolutionary biology of primates with particular emphasis on hominid evolution and behavior. 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 1H — Biological Anthropology - Honors**

#### 3 Units

- **Degree Applicable, CSU**
- **Prerequisite:** Acceptance into the Honors Program
- **54 hours lecture**
- The evolutionary biology of primates with particular emphasis on hominid evolution and behavior. The anthropological approach to the study of human behavior from a cross cultural, comparative, and an evolutionary perspective. A technical presentation is stressed as this course is designed for Social Sciences majors.

**ANTH 1L — Biological Anthropology Laboratory**

#### 1 Unit

- **Degree Applicable, CSU**
- **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.

**ARCH 10 — Design I - Elements of Design**

#### 3 Units

- **Degree Applicable, CSU**
- **36 hours lecture**
- **72 hours lab**
- Fundamentals of two- and three-dimensional design and design process. Elements include visualization, perception, presentation, expression, and site analysis of physical/contextual/cultural aspects of design and/or the urban environment. Portfolio will be produced.

**ARCH 11 — Architectural Drawing**

#### 3 Units

- **Degree Applicable, CSU**
- **36 hours lecture**
- **72 hours lab**
- **Advisory:** Eligibility for MATH 51
- Basic graphic and drawing techniques, including architectural graphics, building construction fundamentals, and methods of drawings considered prerequisite to architectural design.
## Course Descriptions

**ARCH 12 — Architectural Materials and Specifications** 3 Units  
54 hours lecture  
Advisory: Eligibility for MATH 51  
Architectural and interior illustration including perspective drawing, sketching, shading and shadows, entourage, and color application utilizing various media and development of project portfolio.  
Degree Applicable, CSU

**ARCH 13 — Architectural Illustration** 3 Units  
36 hours lecture  
72 hours lab  
Advisory: ARCH 11 or equivalent experience  
Architectural and interior illustration including perspective drawing, sketching, shades and shadows, entourage, and color application utilizing various media and development of project portfolio.  
Degree Applicable, CSU, UC

**ARCH 14 — Building and Zoning Codes** 3 Units  
54 hours lecture  
Advisory: ARCH 11 or equivalent experience  
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.  
Degree Applicable

**ARCH 15 — Architectural Working Drawings - I** 3 Units  
36 hours lecture  
72 hours lab  
Advisory: ARCH 11, ARCH 12, ARCH 14, and eligibility for MATH 51  
Architectural and interior illustration including perspective drawing, sketching, shades and shadows, entourage, and color application utilizing various media and development of project portfolio.  
Degree Applicable, CSU

**ARCH 16 — Basic CAD and Computer Application** 4 Units  
54 hours lecture  
54 hours lab  
Advisory: Eligibility for MATH 51  
Basic CAD (Computer Aided Design and Drafting) and computer application in architecture, engineering and related fields (including basic word processing, spreadsheet, CAD and presentation applications).  
Degree Applicable, CSU, UC

**ARCH 17 — Architectural Computer Aided Design Elements** 3 Units  
36 hours lecture  
72 hours lab  
Advisory: ARCH 11, ARCH 16 or equivalent experience  
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.  
Degree Applicable

**ARCH 18 — Architectural Computer Aided Design** 3 Units  
36 hours lecture  
72 hours lab  
Advisory: ARCH 11, ARCH 16 or equivalent experience  
Architectural Computer Aided Design and Drafting Specifically for architectural design and production. Portfolio of 2-D drawings and 3-D CAD models will be produced.  
Degree Applicable

**ARCH 19 — Architectural CAD Working Drawings** 3 Units  
36 hours lecture  
72 hours lab  
Advisory: ARCH 15, ARCH 18 or equivalent experience  
Advanced architectural CAD drawings. Portfolio of working drawing and presentation applications of integrated 2-D and 3-D CAD models will be produced.  
Degree Applicable, CSU, UC

**ARCH 20 — Architectural CAD Working Drawings - II** 3 Units  
36 hours lecture  
72 hours lab  
Advisory: ARCH 15, ARCH 18 or equivalent experience  
Advanced architectural CAD drawings. Portfolio of working drawing and presentation applications of integrated 2-D and 3-D CAD models will be produced.  
Degree Applicable, CSU, UC

**ARCH 21 — Design II - Architectural Design** 3 Units  
36 hours lecture  
72 hours lab  
Advisory: ARCH 10, ARCH 11, ARCH 13  
Application of methods and theory used in architectural design projects. Includes graphic technique, design process, site analysis, presentation drawings and construction principles. Portfolio will be produced.  
Degree Applicable, CSU

**ARCH 22 — Architectural Design** 3 Units  
36 hours lecture  
72 hours lab  
Advisory: ARCH 10, ARCH 11, ARCH 13  
Application of methods and theory used in architectural design projects. Includes graphic technique, design process, site analysis, presentation drawings and construction principles. Portfolio will be produced.  
Degree Applicable, CSU

**ARCH 23 — Architectural Presentations** 3 Units  
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.  
Degree Applicable, CSU, UC

**ARCH 24 — Architectural CAD - Advanced Project** 3 Units  
36 hours lecture  
72 hours lab  
Advisory: ARCH 18 or equivalent experience  
Advanced architectural CAD in 3-D illustration, rendering and animation. Virtual “walk-through” and “fly-through” of interior/exterior 3-D models with photo-realistic materials and lighting will be produced.  
Degree Applicable, CSU

**ARCH 25 — Architectural CAD - Advanced Project - II** 3 Units  
36 hours lecture  
72 hours lab  
Advisory: ARCH 18 or equivalent experience  
Advanced architectural CAD in 3-D illustration, rendering and animation. Virtual “walk-through” and “fly-through” of interior/exterior 3-D models with photo-realistic materials and lighting will be produced.  
Degree Applicable, CSU

**ARCH 26 — Architectural CAD 3-D Illustration and Animation** 3 Units  
36 hours lecture  
72 hours lab  
Advisory: ARCH 18 or equivalent experience  
Intermediate to advanced architectural CAD in 3-D illustration, rendering and animation. Virtual "walk-through" and "fly-through" of interior/exterior 3-D models with photo-realistic materials and lighting will be produced.  
Degree Applicable, CSU

**ARCH 27 — Design III - Environmental Design** 3 Units  
36 hours lecture  
72 hours lab  
Advisory: ARCH 21, ARCH 23 or equivalent experience  
Application of theory and principles of environmental design as applied to architecture, landscape architecture, urban design, urban planning and (civil) engineering. Portfolio will be produced.  
Degree Applicable, CSU, UC

**ARCH 28 — Architectural CAD 3-D Illustration** 3 Units  
36 hours lecture  
72 hours lab  
Advisory: ARCH 18 or equivalent experience  
Intermediate to advanced architectural CAD in 3-D illustration, rendering and animation. Virtual "walk-through" and "fly-through" of interior/exterior 3-D models with photo-realistic materials and lighting will be produced.  
Degree Applicable, CSU

**ARCH 29 — Design IV - Advanced Project** 3 Units  
36 hours lecture  
72 hours lab  
Advisory: ARCH 23, ARCH 27 or equivalent experience  
Advanced design seminars and complex building design projects in architecture, including portfolio development.  
Degree Applicable, CSU

**ARCH 30 — Architectural CAD 3-D Illustration - II** 3 Units  
36 hours lecture  
72 hours lab  
Advisory: ARCH 18 or equivalent experience  
Intermediate to advanced architectural CAD in 3-D illustration, rendering and animation. Virtual "walk-through" and "fly-through" of interior/exterior 3-D models with photo-realistic materials and lighting will be produced.  
Degree Applicable, CSU

**ARCH 31 — World Architecture I** 3 Units  
54 hours lecture  
Development of architecture including ancient Egypt, Europe through the Middle Ages, and classic civilizations of Asia and the Americas. Influence of geography, religion, and socio-economic movements on architecture.  
Degree Applicable, CSU

**ARCH 32 — World Architecture II** 3 Units  
54 hours lecture  
Development of modern architecture from the Renaissance to the present day. Influence of environment, religion and socio-economic movements on architecture.  
Degree Applicable, CSU

**ARCH 33 — Architectural Work Experience** 1 to 2 Units  
(May be taken four times for credit)  
(May be taken for Pass/No Pass only)  
75 to 150 hours lab  
Prerequisite: Compliance with Work Experience regulations as designated in the College Catalog  
This course is designed to provide actual on-the-job experience in architecture at an approved work site which is related to classroom instruction. A minimum of 75 paid or 60 non-paid clock hours per semester of supervised work is required for each unit of credit. It is recommended that the hours per week be equally distributed throughout the semester. This course is available to students achieving a minimum of 12 units in architecture. Students who repeat this course will improve skills through further instruction and practice.  
Degree Applicable

**ART HISTORY**

**AHIS 1 — Understanding the Visual Arts** 3 Units  
54 hours lecture  
Prerequisite: Eligibility for ENGL 68  
Fundamentals of visual art forms and the role art plays in various historical periods and cultures. Students may not earn credit for both AHIS 1 and ARTB 1.  
Degree Applicable, CSU, UC

**AHIS 1H — Understanding the Visual Arts - Honors** 3 Units  
54 hours lecture  
Prerequisite: Acceptance into the Honors Program  
Fundamentals of visual art forms and the role art plays in various historical periods and cultures. An honors course designed to provide an enriched experience. Students may not receive credit for both AHIS 1 (formerly ARTA 1) and AHIS 1H.
AHIS 2 — Topics in Visual Art and Culture 3 Units
Degree Applicable, CSU, UC
54 hours lecture
Advisory: Eligibility for ENGL 1A
A thematic introduction to selected works of art and visual culture, providing a framework for understanding the relationship between art and society and the differing ways art can be viewed. A global and/or interdisciplinary approach will be taken. Topics will vary with instructor.

AHIS 2H — Topics in Visual Art and Culture - Honors 3 Units
Degree Applicable, CSU, UC
54 hours lecture
Prerequisite: Acceptance into the Honors Program
Western art from the Prehistoric through Gothic periods demonstrating the relationship of various visual art forms to each other and to the cultural context in which they were produced. An honors course designed to provide an enriched experience. Students may not receive credit for both AHIS 2 (formerly ARTA 2) and AHIS 2H.

AHIS 3 — History of Women and Gender in Art 3 Units
Degree Applicable, CSU, UC
54 hours lecture
Advisory: Eligibility for ENGL 1A
Survey of the roles of women and gender in cultural creation and production with a focus on the visual arts. A historical and global survey, covering the role of women artists in the history of art and the representation of gender in a variety of cultures and time periods.

AHIS 3H — History of Women and Gender in Art - Honors 3 Units
Degree Applicable, CSU, UC
54 hours lecture
Prerequisite: Acceptance into the Honors Program
Survey of the roles of women and gender in cultural creation and production with a focus on the visual arts. A historical and global survey, covering the role of women artists in the history of art and the representation of gender in a variety of cultures and time periods. An honors course designed to provide an enriched experience. Students may not receive credit for both AHIS 3 (formerly ARTA 3) and AHIS 3H.

AHIS 4 — History of Western Art: Prehistoric Through Gothic 3 Units
Degree Applicable, CSU, UC
54 hours lecture
Prerequisite: Eligibility for ENGL 68
An examination of Western art from the Prehistoric through Gothic periods, demonstrating the relationship of various visual art forms to each other and to the cultural context in which they were produced.

AHIS 4H — History of Western Art: Prehistoric Through Gothic - Honors 3 Units
Degree Applicable, CSU, UC
54 hours lecture
Prerequisite: Acceptance into the Honors Program
Western art from the Prehistoric through Gothic periods demonstrating the relationship of various visual art forms to each other and to the cultural context in which they were produced. An honors course designed to provide an enriched experience. Students may not receive credit for both AHIS 4 (formerly ARTA 4) and AHIS 4H.

AHIS 5 — History of Western Art: Renaissance Through Modern 3 Units
Degree Applicable, CSU, UC
54 hours lecture
Prerequisite: Acceptance into the Honors Program
Western art from the Renaissance through Modern periods, demonstrating the relationship of various visual art forms to each other and to the cultural context in which they were produced.

AHIS 5H — History of Western Art: Renaissance Through Modern - Honors 3 Units
Degree Applicable, CSU, UC
54 hours lecture
Prerequisite: Acceptance into the Honors Program
Western art from the Renaissance through Modern periods, demonstrating the relationship of various visual art forms to each other and to the cultural context in which they were produced. An honors course designed to provide an enriched experience. Students may not receive credit for both AHIS 5 (formerly ARTA 5) and AHIS 5H.

AHIS 6 — History of Modern Art 3 Units
Degree Applicable, CSU, UC
54 hours lecture
Prerequisite: Acceptance into the Honors Program
Examines the artistic movements, influences, and individuals who have formed the Modern tradition. Emphasis is on the 20th century; the international and multicultural character of Modern art will be explored.

AHIS 6H — History of Modern Art - Honors 3 Units
Degree Applicable, CSU, UC
54 hours lecture
Prerequisite: Acceptance into the Honors Program
Examines the artistic movements, influences, and individuals who have formed the Modern tradition. Emphasis is on the 20th century; the international and multicultural character of Modern art will be explored. An honors course designed to provide an enriched experience. Students may not receive credit for both AHIS 6 (formerly ARTA 6) and AHIS 6H.

AHIS 9 — History of Asian Art 3 Units
Degree Applicable, CSU, UC
54 hours lecture
Prerequisite: Acceptance into the Honors Program
An examination of Asian artistic traditions. Major monuments of painting, sculpture, architecture and other visual art forms are studied within their religious and cultural contexts.

AHIS 10 — A History of Greek and Roman Art and Architecture 3 Units
Degree Applicable, CSU
54 hours lecture
Advisory: Eligibility for ENGL 68
A critical history of Greek and Roman art before 500 CE. Works of art and architecture will be examined in their cultural contexts. Historical perceptions of Classical art and culture and their impact on Europe and America will be studied.

AHIS 11 — History of African, Oceanic, and Native American Art 3 Units
Degree Applicable, CSU, UC
54 hours lecture
Advisory: Eligibility for ENGL 68
Examination of the traditional arts of African tribes and kingdoms, Oceania and Australia, and Native North America. Visual arts including painting, sculpture, architecture, body decoration, and ritual objects will be studied in their cultural contexts.

AHIS 12 — History of Pre-Columbian Art 3 Units
Degree Applicable, CSU, UC
54 hours lecture
Advisory: Eligibility for ENGL 68
The arts of Pre-Columbian Mesoamerica and Andean South America. Major monuments of sculpture, painting, architecture, ceramics and textiles from civilizations including the Maya, Aztecs, and Inca will be studied in their cultural contexts.

AHIS 12H — History of Pre-Columbian Art - Honors 3 Units
Degree Applicable, CSU, UC
54 hours lecture
Prerequisite: Acceptance into the Honors Program
The arts of Pre-Columbian Mesoamerica and Andean South America. Major monuments of sculpture, painting, architecture, ceramics and textiles from civilizations including the Maya, Aztecs, and Inca will be examined in their cultural contexts. An honors course designed to provide an enriched experience. Students may not receive credit for both AHIS 12 (formerly ARTA 12) and AHIS 12H.
# Course Descriptions

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Units</th>
<th>Degree Applicable</th>
<th>CSU</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARTC 70</td>
<td>Computer Graphics: Introduction</td>
<td>3</td>
<td>Degree Applicable</td>
<td>CSU</td>
<td></td>
</tr>
<tr>
<td>ARTC 74</td>
<td>Computer Graphics: Web Design</td>
<td>3</td>
<td>Degree Applicable</td>
<td>CSU</td>
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</tr>
<tr>
<td>ARTC 77</td>
<td>Computer Graphics: Exploring Digital Illustration</td>
<td>3</td>
<td>Degree Applicable</td>
<td></td>
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<tr>
<td>ARTC 78A</td>
<td>Work Experience in Design/Illustration</td>
<td>1 to 3</td>
<td>Degree Applicable</td>
<td></td>
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</tr>
<tr>
<td>ARTC 79</td>
<td>Computer Graphics: Multimedia</td>
<td>3</td>
<td>Degree Applicable</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ARTC 161</td>
<td>Graphic Design: Layout</td>
<td>3</td>
<td>Degree Applicable</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AHIS 99</td>
<td>Special Projects in Art History</td>
<td>2</td>
<td>Degree Applicable</td>
<td>CSU</td>
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<tr>
<td>ARTC 60</td>
<td>Graphic Design: Lettering and Typography</td>
<td>3</td>
<td>Degree Applicable</td>
<td>CSU, UC</td>
<td></td>
</tr>
<tr>
<td>ARTC 66</td>
<td>Portfolio</td>
<td>3</td>
<td>Degree Applicable</td>
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<tr>
<td>ARTC 165</td>
<td>Illustration</td>
<td>3</td>
<td>Degree Applicable</td>
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<tr>
<td>ARTC 171</td>
<td>Computer Graphics 2: Advanced Layout</td>
<td>3</td>
<td>Degree Applicable</td>
<td>CSU</td>
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</tr>
<tr>
<td>ARTC 172</td>
<td>Computer Graphic - Multimedia</td>
<td>3</td>
<td>Degree Applicable</td>
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<tr>
<td>ANIM 101</td>
<td>Drawing - Gesture and Figure</td>
<td>3</td>
<td>Degree Applicable</td>
<td>CSU</td>
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</tr>
</tbody>
</table>

### ART: ADVERTISING DESIGN/GRAPHICS

- **ARTC 60** — Graphic Design: Lettering and Typography 3 Units
  - 36 hours lecture
  - 72 hours lab
  - Prerequisite: Eligibility for ENGL 68
  - An entry level course emphasizing creative expression through a variation of design concepts, letter forms and style variation. Emphasis is placed on tools and techniques as applied to comprehensive graphic design images.

- **ARTC 66** — Portfolio 3 Units
  - 36 hours lecture
  - 72 hours lab
  - Prerequisite: Completion of a minimum of 15 semester units in Advertising Design, Architectural Design, Art, Fashion Merchandising, Industrial Design, Interior Design or Photography
  - This course aids individuals from any of the visual art disciplines to assemble a portfolio, book, or package of works of art (that represents their individual development, interests and/or strengths) for use to enter a four-year institution, professional art school, or a professional field of choice.

- **ARTC 70** — Computer Graphics: Introduction 3 Units
  - 36 hours lecture
  - 72 hours lab
  - Prerequisite: Eligibility for ENGL 68
  - Introduces basic art, design and color theory principles to the application of 2-dimensional computer graphics. Explores basic computer concepts applied to graphic projects utilizing professional imaging software programs. Introduces the use of color scanner, digitized artist tablet, laser and color printers. Software: Adobe Photoshop, Adobe Illustrator.

- **ARTC 74** — Computer Graphics: Web Design 3 Units
  - 36 hours lecture
  - 72 hours lab
  - Prerequisite: ARTC 70
  - Advisory: COMP 13
  - Professional design concepts applied to the common elements of Web site design and development including page and site design, usability, editing and formatting, graphics preparation, multimedia technologies, tables, forms, frames, cascading style sheets (CSS). An emphasis will be placed on the exploration of new tools and concepts of Web design including Flash navigation, interactivity, animation, and video.

- **ARTC 77** — Computer Graphics: Exploring Digital Illustration 3 Units
  - 36 hours lecture
  - 72 hours lab
  - Prerequisite: ARTC 70
  - Advisory: ARTC 165 or ARTD 15A or ANIM 104
  - Basic principles of art, design and color. Theory as applied to digital hand illustration will be explored and original illustrations created through use of professional illustration software.

- **ARTC 78A** — Work Experience in Design/Illustration 1 to 3 Units
  - (May be taken for credit)
  - (May be taken for Pass/No Pass only)
  - 75 to 225 hours lab
  - Prerequisite: Compliance with Work Experience regulations as designated in the College Catalog
  - This course aids individuals from any of the visual art disciplines to assemble a portfolio, book, or package of works of art (that represents their individual development, interests and/or strengths) for use to enter a four-year institution, professional art school, or a professional field of choice.

- **ARTC 161** — Graphic Design: Layout 3 Units
  - 36 hours lecture
  - 72 hours lab
  - Prerequisite: ARTC 60
  - An introduction to the graphic design process with an emphasis on visual communication strategies that explore type and image, layout and design development, and the use of symbols related to the field of advertising and graphic design. The course uses various traditional media and layout design-related software to explore concept utilization and production, visualization, and professional presentation techniques.

### ART: ANIMATION

- **ANIM 101** — Drawing - Gesture and Figure 3 Units
  - 36 hours lecture
  - 72 hours lab
  - Prerequisite: ART 20 or ARTD 15A or ANIM 104
  - An introduction to contemporary animation with an emphasis on story, editorial, and advertising applications. Course covers the proper uses of illustrative rendering techniques in traditional drawing and painting media, and their integration to electronic media. Using professional illustration software, peripherals, and color laser printing, students advance to produce more complex illustrations.

- **ARTC 165** — Illustration 3 Units
  - 36 hours lecture
  - 72 hours lab
  - Prerequisite: ART 20 or ARTD 15A or ANIM 104 (may have been taken previously)
  - Advanced visual communication strategies related to digital layout and design in Advertising and Graphic Design. Introduces page layout, and image processing in preparation of newsletters, brochures, posters, and advertising collateral. Emphasis is placed on clarity of communication, design and technical skills. Software: Adobe Creative Suite, QuarkXpress.
### Course Descriptions

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Fee Status</th>
<th>Prerequisites</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANIM 104</td>
<td>Drawing Fundamentals</td>
<td>3</td>
<td>Degree Applicable, CSU</td>
<td>36 hours lecture, 72 hours lab, Emphasizes creative expression through the use of drawing media and techniques.</td>
</tr>
<tr>
<td>ANIM 107</td>
<td>Figure in Motion</td>
<td>3</td>
<td>Degree Applicable</td>
<td>(May be taken four times for credit)</td>
</tr>
<tr>
<td>ANIM 108</td>
<td>Principles of Animation</td>
<td>3</td>
<td>Degree Applicable, CSU</td>
<td>36 hours lecture, 72 hours lab, Prerequisite: ANIM 101, Drawing human figures in motion. Anatomical landmarks, proportion, light and shadow, line composition, figure/ground relationship, the interaction of form and content, and the expressive potential of the human figure will be explored. Students who repeat this course will improve skills through further instruction and practice.</td>
</tr>
<tr>
<td>ANIM 109</td>
<td>Advanced Principles of Animation</td>
<td>3</td>
<td>Degree Applicable</td>
<td>36 hours lecture, 72 hours lab, Prerequisite: ANIM 108, Advanced principles of animation including mechanics of motion, weighted movement, lip sync and expression applied to story, staging, and character development. Focus will be on the animated film process from script to storyboards, timing sheets, key posing, inbetweening and clean up through the completion of a final animation.</td>
</tr>
<tr>
<td>ANIM 110</td>
<td>Animal Drawing</td>
<td>1.5</td>
<td>Degree Applicable</td>
<td>18 hours lecture, 36 hours lab, Prerequisite: ARTD 15A or ANIM 4 or ANIM 104, Explores both traditional and contemporary approaches to sketching and drawing animals. Gesture, anatomical structure, proportion, line and action analysis will be explored. Requires several off-campus field trips. Students who repeat this course will improve skills through further instruction and practice.</td>
</tr>
<tr>
<td>ANIM 115</td>
<td>Storyboarding</td>
<td>3</td>
<td>Degree Applicable</td>
<td>36 hours lecture, 72 hours lab, Prerequisite: ARTD 15A or ANIM 104, Storyboarding for animation including script, idea and action development. Staging, expression, emotional appeal, camera movement, dialogue and character enhancement, and development will be included.</td>
</tr>
<tr>
<td>ANIM 116</td>
<td>Character Development</td>
<td>1.5</td>
<td>Degree Applicable</td>
<td>18 hours lecture, 36 hours lab, Prerequisite: ARTD 15A or ANIM 104, Techniques for innovation and development of animated characters. Observation of details for drawings of character attitude, personality, movement, posing, point-of-view, dialog/mouth positions, body language, and development of consistent drawing techniques for model sheets.</td>
</tr>
<tr>
<td>ANIM 117</td>
<td>Animation Background Layout</td>
<td>3</td>
<td>Degree Applicable, CSU</td>
<td>36 hours lecture, 72 hours lab, Prerequisite: ANIM 115 or ARTD 16, Basic principles of design and composition as applied to layout and background design for animation. Drawing and painting techniques emphasizing rendering, modeling, light logic, perspective, color, space and environments are included.</td>
</tr>
<tr>
<td>ANIM 118</td>
<td>Background Painting</td>
<td>3</td>
<td>Degree Applicable</td>
<td>36 hours lecture, 72 hours lab, Analyis and production of environments for scenes in animation. Emphasis on the study of light logic and color as they pertain to the creation of atmosphere, mood and environments.</td>
</tr>
<tr>
<td>ANIM 119</td>
<td>Portfolio</td>
<td>1.5</td>
<td>Degree Applicable</td>
<td>18 hours lecture, 36 hours lab, Prerequisite: ANIM 115 and ANIM 116, Production of a portfolio representative of student interest, strength and skill for entry into animation fields, professional schools, or baccalaureate institutions. Selection of work for a portfolio will be determined by requirements of the animation specialty and institution to which it is directed.</td>
</tr>
<tr>
<td>ANIM 120</td>
<td>Script Development for Animation</td>
<td>3</td>
<td>Degree Applicable</td>
<td>54 hours lecture, Creative and problem solving processes as applied to story and script development. Scripts screenplays, live action and animated film, and the practical application of story adaptation to screenplay.</td>
</tr>
<tr>
<td>ANIM 130</td>
<td>Introduction to 3-D Computer Animation</td>
<td>3</td>
<td>Degree Applicable</td>
<td>36 hours lecture, 72 hours lab, Explores 3-D computer animation interfaces, use of polygons, perspective views, contouring, links, external processors for special computer effects, and using the Alias MAYA software. 3-D modeling, rendering, and animation of primitive and complex poly-spline meshes used in environments, and following a story board developed for scene sequencing are included.</td>
</tr>
<tr>
<td>ANIM 132</td>
<td>Modeling, Texture Mapping and Lighting</td>
<td>3</td>
<td>Degree Applicable</td>
<td>36 hours lecture, 72 hours lab, Advisory: ANIM 130, Explores 3-D poly-spline modeling and texture mapping and rendering for realistic perspective, reflections, transparency, and background and environmental building using the Alias MAYA software. Includes camera animation with stage and environmental scenes featuring fly-throughs and colored lighting effects.</td>
</tr>
<tr>
<td>ANIM 134</td>
<td>Visual Effects I: Dynamics</td>
<td>1.5</td>
<td>Degree Applicable</td>
<td>18 hours lecture, Advisory: ANIM 132, Advanced course exploring the animation techniques called dynamics. Covers building material for 3-D objects using bitmaps to create texture maps and using light effects in 3-D computer environments.</td>
</tr>
<tr>
<td>ANIM 135</td>
<td>Visual Effects II: Particle Systems</td>
<td>1.5</td>
<td>Degree Applicable</td>
<td>18 hours lecture, Advisory: ANIM 134, Advanced course in the creation of computer animated particle systems that imitate the natural forces of nature, the physical forces of the universe and plasma forces of combustion.</td>
</tr>
</tbody>
</table>
## Course Descriptions

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANIM 136</td>
<td>Animation Environment Layout</td>
<td>3</td>
<td>36 hours lecture 72 hours lab Advisory: ANIM 132 Create an environment project: design, model, texture, and light an environment for a computer graphics game or film.</td>
</tr>
<tr>
<td>ANIM 137A</td>
<td>Work Experience in New Digital Media</td>
<td>1-3</td>
<td>(May be taken four times for credit) 75 to 225 hours lab Advisory: Completion of the first and second semester of the Animation Program This course is designed to provide actual on-the-job experience in Animation at an approved work site which is related to classroom instruction. A minimum of five hours per week of supervised work (60 non-paid clock hours or 75 paid clock hours per semester) is required for each one unit of credit. Students who repeat this course will improve skills through further instruction and practice.</td>
</tr>
<tr>
<td>ANIM 145</td>
<td>Advanced 3-D Modeling</td>
<td>3</td>
<td>36 hours lecture 72 hours lab Advisory: ANIM 132 An advanced course in 3-D modeling with a focus on designing, modeling, and rigging a character for animation.</td>
</tr>
<tr>
<td>ANIM 146</td>
<td>Advanced 3-D Animation</td>
<td>3</td>
<td>36 hours lecture 72 hours lab Advisory: ANIM 132 Animation of a pre-selected 3-D dynamic environment project and development of characteristics and personality of 3-D characters through animation.</td>
</tr>
<tr>
<td>ANIM 148</td>
<td>Demo-Reel</td>
<td>1.5</td>
<td>(May be taken four times for credit) 18 hours lecture 36 hours lab Advisory: ANIM 130 Production of a demo-reel representative of student interest, strength and skill for entry into animation fields, professional schools or baccalaureate institutions. Students who repeat this course will improve skills through further instruction and practice.</td>
</tr>
<tr>
<td>ANIM 172</td>
<td>Motion Graphics With After Effects</td>
<td>3</td>
<td>(May be taken for option of letter grade or Pass/No Pass) 36 hours lecture 72 hours lab Prerequisite: ARTC 70 Explores the creative and technical processes for building motion-graphics using After Effects and/or other industry appropriate software. 2D and 3D compositing, animation, audio/video effects, editing and rendering of motion-graphics for video, CD and DVD formats will be taught.</td>
</tr>
<tr>
<td>ARTG 20</td>
<td>Art, Artists and Society</td>
<td>3</td>
<td>36 hours lecture 72 hours lab Prerequisite: ARTG 20 Explores art as a creative process and the role of an artist in contemporary and past societies approached through analysis of art exhibitions and artist studio visitsations. Emphasis on visual principles and content of historic and contemporary art works. Examines the dynamic and history of public art display and the nature of exhibition design with an overview of art movements, styles, symbols, theories and terms.</td>
</tr>
<tr>
<td>ARTG 21A</td>
<td>Introduction to Exhibition Production</td>
<td>3</td>
<td>36 hours lecture 72 hours lab Prerequisite: ARTG 20A Provides increasing responsibility in exhibition planning, research, operation and management. Focuses on art as a profession with emphasis on historical/contemporary terms, theories, movements and media in the context of an art exhibition production.</td>
</tr>
<tr>
<td>ARTG 21B</td>
<td>Intermediate Exhibition Production</td>
<td>3</td>
<td>36 hours lecture 72 hours lab Prerequisite: ARTG 21A Provides increasing responsibility in exhibition planning, research, operation and management. Focuses on art as a profession with emphasis on historical/contemporary terms, theories, movements and media in the context of an art exhibition production.</td>
</tr>
<tr>
<td>ARTG 22A</td>
<td>Exhibition Design and Art Gallery</td>
<td>1-2</td>
<td>72 hours lab Prerequisite: ARTG 21A Provides increasing responsibility in exhibition planning, research, operation and management. Focuses on art as a profession with emphasis on historical/contemporary terms, theories, movements and media in the context of an art exhibition production.</td>
</tr>
<tr>
<td>ARTG 250</td>
<td>Specialized Studio-Art Studies</td>
<td>2</td>
<td>18 hours lecture 54 hours lab Prerequisite: Satisfactory completion of all courses within a given art emphasis Extended studio experiences supplementary to those available in the courses within a given art emphasis and allows the student to pursue more advanced and complex studio projects and experiments. Emphasis is placed upon the development of an individual creative direction. Students repeating this course will make individual contracts of a more advanced nature with the instructor to ensure that proficiencies are enhanced.</td>
</tr>
<tr>
<td>COURSE DESCRIPTIONS</td>
<td>ARTS 22 — Design: Three-Dimensional</td>
<td>ARTS 33 — Ceramics: Hand Construction</td>
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<tr>
<td>ARTS 22 — Design: Three-Dimensional</td>
<td>3 Units</td>
<td>Degree Applicable, CSU, UC</td>
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<tr>
<td>36 hours lecture</td>
<td>36 hours lecture</td>
<td>(May be taken four times for credit)</td>
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<tr>
<td>72 hours lab</td>
<td>72 hours lab</td>
<td>(May be taken for option of letter grade or Pass/No Pass)</td>
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</tr>
<tr>
<td>Prerequisite: Eligibility for ENGL 6B</td>
<td>(May be taken for option of letter grade or Pass/No Pass)</td>
<td>(May be taken four times for credit)</td>
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<tr>
<td>A continuation of ARTS 31A, examining the problems of aesthetically integrating materials and design by means of advanced problems in the technique of clay construction, glazing and firing. Emphasis is on integrating form and content, mixing glazes and the variety of firing processes.</td>
<td>Introduction to clay, glazes and firing through projects that are hand built. Emphasis is on developing skills and vocabulary and analysis of form, function, aesthetics and craftsmanship through projects, discussion and oral/written criticism.</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>ARTS 30A — Ceramics: Beginning</th>
<th>ARTS 40A — Sculpture: Beginning</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARTS 30A — Ceramics: Beginning</td>
<td>3 Units</td>
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<tr>
<td>36 hours lecture</td>
<td>36 hours lecture</td>
</tr>
<tr>
<td>72 hours lab</td>
<td>72 hours lab</td>
</tr>
<tr>
<td>(May be taken four times for credit)</td>
<td>(May be taken four times for credit)</td>
</tr>
<tr>
<td>Prerequisite: ARTS 30A</td>
<td>Prerequisite: ARTS 40A</td>
</tr>
<tr>
<td>A continuation into the study of clay, glazes and firing, developing skills introduced in ARTS 30A. Emphasis is on more advanced techniques, using larger amounts of clay and developing the aesthetics of design through form, function and aesthetics through projects and oral and written criticism.</td>
<td>Advanced projects in subtractive, additive and manipulative approaches are explored. Students who repeat this course will improve skills by further instruction and practice.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ARTS 31B — Ceramics: Intermediate</th>
<th>ARTS 46 — Sculpture: Special Effects Makeup</th>
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<tbody>
<tr>
<td>ARTS 31B — Ceramics: Intermediate</td>
<td>3 Units</td>
</tr>
<tr>
<td>36 hours lecture</td>
<td>36 hours lecture</td>
</tr>
<tr>
<td>72 hours lab</td>
<td>72 hours lab</td>
</tr>
<tr>
<td>Prerequisite: ARTS 30B</td>
<td>Prerequisite: ARTS 41 and/or ARTS 42</td>
</tr>
<tr>
<td>Integrating materials and design through advanced problems in the techniques of clay construction, glazing and firing.</td>
<td>Modeling, molding, casting and application of special effects makeup appliances and masks to the human figure. Emphasis on human anatomy as it informs sculptural form and specialized molding and casting techniques and materials. Students who repeat this course will improve skills by further instruction and practice.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ARTS 41B — Sculpture: Life</th>
<th>ARTD 15A — Drawing: Beginning</th>
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</thead>
<tbody>
<tr>
<td>ARTS 41B — Sculpture: Life</td>
<td>3 Units</td>
</tr>
<tr>
<td>36 hours lecture</td>
<td>36 hours lecture</td>
</tr>
<tr>
<td>72 hours lab</td>
<td>72 hours lab</td>
</tr>
<tr>
<td>Modeling from the human figure with emphasis on composition, gesture, motion and human anatomy as it informs sculptural form. Development of perceptual and technical skills in clay modeling from the human figure.</td>
<td>Drawing emphasizing further development of perceptual and technical skills attained in ARTD 15A. Students will advance their abilities in dry and fluid media, while expanding their use of the formal elements and principles in both representational and expressionistic styles.</td>
</tr>
</tbody>
</table>

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<thead>
<tr>
<th>ARTD 15A — Drawing: Beginning</th>
<th>ARTD 15B — Drawing: Beginning</th>
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<tr>
<td>ARTD 15A — Drawing: Beginning</td>
<td>3 Units</td>
</tr>
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<td>36 hours lecture</td>
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</tr>
<tr>
<td>72 hours lab</td>
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</tr>
<tr>
<td>Prerequisite: ARTD 15A</td>
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</tr>
<tr>
<td>An entry level course emphasizing creative expression through the use of drawing media. Emphasis is placed on basic drawing methods and skills, composition and exploration of drawing media.</td>
<td>Drawing emphasizing further development of perceptual and technical skills attained in ARTD 15A. Students will advance their abilities in dry and fluid media, while expanding their use of the formal elements and principles in both representational and expressionistic styles.</td>
</tr>
</tbody>
</table>

| ARTD 16 — Drawing: Perspective | 3 Units | Degree Applicable, CSU, UC |
| --- | --- | Degree Applicable, CSU, UC |
| 36 hours lecture | 36 hours lecture | Degree Applicable, CSU, UC |
| 72 hours lab | 72 hours lab | Degree Applicable, CSU, UC |
| Prerequisite: ARTD 15A or ANIM 104 | Prerequisite: ARTD 15A or ANIM 104 |
| Drawing using the elements and principles of linear perspective with lights and shadows to represent natural and fabricated forms. Emphasizes methods and techniques directly related to the artist's needs. | Drawing emphasizing further development of perceptual and technical skills attained in ARTD 15A. Students will advance their abilities in dry and fluid media, while expanding their use of the formal elements and principles in both representational and expressionistic styles. |
### Course Descriptions

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Units</th>
<th>Description</th>
<th>Prerequisites</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARTD 15A</td>
<td>Painting: Advanced 2-D</td>
<td>3</td>
<td>Emphasizes creative self-expression through the painting media. Students will develop the ability to conceptualize and solve compositional and technical painting problems.</td>
<td>ARTD 15A or ANIM 104</td>
</tr>
<tr>
<td>ARTD 15B</td>
<td>Painting: Advancedפוטושא 2-D</td>
<td>3</td>
<td>Develops a working knowledge of painting media. Painting problems are studied in order to broaden the student’s knowledge of painting organization.</td>
<td>ARTD 25A</td>
</tr>
<tr>
<td>ARTD 16A</td>
<td>Painting: Beginning</td>
<td>3</td>
<td>Prerequisite: ARTD 16B with a focus on color and expression.</td>
<td>ARTD 25A</td>
</tr>
<tr>
<td>ARTD 17A</td>
<td>Drawing: Life</td>
<td>3</td>
<td>Prerequisite: ARTD 17A with an emphasis on personal interpretation, individual expression, and media exploration.</td>
<td>ARTD 17A</td>
</tr>
<tr>
<td>ARTD 17B</td>
<td>Drawing: Life</td>
<td>3</td>
<td>Prerequisite: ARTD 17B with an emphasis on personal interpretation, individual expression, and media exploration.</td>
<td>ARTD 17A</td>
</tr>
<tr>
<td>ARTD 20</td>
<td>Design: Two Dimensional</td>
<td>3</td>
<td>Development of perception through study of the relationships of two-dimensional dynamics and organization. Emphasis is placed on the vocabulary, theory, and analysis of the formal elements and principles of all forms of art through lecture, discussion, oral and written criticism and testing as they apply to studio projects in design for all disciplines of the arts.</td>
<td>ARTD 15A or ANIM 104</td>
</tr>
<tr>
<td>ARTD 21</td>
<td>Design: Color and Composition</td>
<td>3</td>
<td>Prerequisite: ARTD 21 with a focus on color theory and relationships of pigment and light. Emphasis will be placed on fundamental color harmonies, color matching, the effects of light, color perception and expression in their application to design and composition and as they are used in all other disciplines of the arts.</td>
<td>ARTD 20 or ARTD 21</td>
</tr>
<tr>
<td>ARTD 23A</td>
<td>Drawing: Head and Hands</td>
<td>1.5</td>
<td>Contemporary and traditional approaches to constructing images of the human head and hands. Anatomy, proportion, light logic, composition, expression and the interaction of form and content. Students who repeat this course will improve skills through further instruction and practice.</td>
<td>ARTD 15A or ANIM 104</td>
</tr>
<tr>
<td>ARTD 27</td>
<td>Painting: Watercolor</td>
<td>3</td>
<td>Basic watercolor techniques as they relate to compositional and technical problems in painting. Emphasis is placed upon painting skills as related to transparent watercolor methods as well as exploration into opaque and mixed-media approaches. Students who repeat this course will improve skills through further instruction and practice.</td>
<td>ARTD 27 with a focus on basic watercolor techniques and mixed-media approaches.</td>
</tr>
</tbody>
</table>
### ASTR 5H — Introduction to Astronomy - Honors

3 Units  
Degree Applicable, CSU, UC  
54 hours lecture  
Prerequisite: Eligibility for ENGL 1A; acceptance into Honors Program  
An honors course designed to provide an enriched experience. A non-technical survey of the Universe. Fundamental concepts and facts of astronomy. Topics include the origin and evolution of planets, stars, and galaxies; results of space exploration and modern cosmology. Enroll in ASTR 5L to receive laboratory science credit. Field trips may be required. Students may not receive credit for both ASTR 5H and ASTR 5L.

### ASTR 5L — Astronomical Observing Laboratory

1 Unit  
Degree Applicable, CSU, UC  
54 hours lab  
Corequisite: ASTR 5 or ASTR 7 or ASTR 8 (may have been taken previously)  
Provides practical experience in astronomy including use of telescopes and demonstrations in the college planetarium. Occasional evening observing sessions with the telescopes and other field trips are required.

### ASTR 7 — Geology of the Solar System

3 Units  
Degree Applicable, CSU  
54 hours lecture  
A study of the Earth-like planets, satellites, and meteorites, from a geological point of view. Surveys geological methods and their application to the study of cratering, tectonic and volcanic activity, weathering, rock formation, landsliding, erosion, faulting, etc. Emphasis on solar system bodies other than Earth. Field trips may be required.

### ASTR 8 — Introduction to Stars, Galaxies, and the Universe

3 Units  
Degree Applicable, CSU  
54 hours lecture  
Introduction to astronomy with emphasis on the structure and evolution of stars, galaxies, and the universe. Field trips required.

### ASTR 99 — Special Projects in Astronomy

2 Units  
Degree Applicable, CSU  
36 hours lecture  
In order to offer selected students recognition for their academic interests and ability, and the opportunity to explore their disciplines to greater depth, the various departments from time to time offer Special Projects courses. The content of each course and the methods of study vary from semester to semester and depend on the particular project under consideration. Student must have instructor’s authorization before enrolling in this class. Students who repeat this course will improve skills through further instruction and practice.

### BIOL 1 — General Biology

4 Units  
Degree Applicable, CSU, UC  
54 hours lecture  
Prerequisite: Eligibility for ENGL 68  
An introduction to the major principles and concepts of biology, including cellular biology, energy relationships, biological systems, heredity, evolution and ecology. BIOL 1 is recommended for non-majors. BIOL 4 is recommended for biology majors and those majors requiring a more rigorous biology background.

### BIOL 2 — Plant and Animal Biology

4 Units  
Degree Applicable, CSU, UC  
54 hours lecture  
54 hours lab  
Prerequisite: BIOL 1 or BIOL 4; and Math 71  
Basic structures and functions of plants and animals including concepts in systematics, evolution, physiology, ecology, and biotic relationships.

### BIOL 3 — Ecology and Field Biology

4 Units  
Degree Applicable, CSU, UC  
54 hours lecture  
54 hours lab  
Identification and ecological relationships of common local plants and animals. Emphasizes evolutionary relationships; ecology including animal behavior, communities, ecosystems, wilderness and wildlife preservation, and population dynamics. Techniques of collecting and preserving. Many laboratory meetings conducted off campus; most trips require walking/ hiking. Includes one weekend or all day field trip.

### BIOL 4 — Biology for Majors

4 Units (CAN BIOL02)  
Degree Applicable, CSU, UC  
54 hours lecture  
72 hours lab  
Prerequisite: CHEM 10 or CHEM 40, and MATH 71  
Examines core principles of biology required for advanced study, including concepts of cellular and molecular biology, bioenergetics, genetics, reproduction, evolution, biodiversity, and ecology. Includes one hour discussion group per week.

### BIOL 4H — Biology for Majors - Honors

4 Units (CAN BIOL02)  
Degree Applicable, CSU, UC  
54 hours lecture  
72 hours lab  
Prerequisite: Acceptance into the Honors Program, CHEM 10, and MATH 71  
Explores core principles of biology required for advanced study, including concepts of cellular and molecular biology, bioenergetics, genetics, reproduction, evolution, biodiversity and ecology. An honors course designed to provide an enriched experience for accelerated students. Students may not receive credit for both BIOL 4 and BIOL 4H.

### BIOL 5 — Contemporary Health Issues

3 Units  
Degree Applicable, CSU, UC  
54 hours lecture  
Prerequisite: Eligibility for ENGL 68  
Provides an overview of contemporary health issues known to affect the quality and longevity of life. Topics include: sexuality and reproduction, stress management, fitness and nutrition, substance use and abuse, and environmental quality. Emphasis is on prevention of illness and injuries. May satisfy the Health Education requirement for a California State Teaching Credential.

### BIOL 6 — Humans and the Environment

3 Units  
Degree Applicable, CSU, UC  
54 hours lecture  
Prerequisite: Eligibility for ENGL 68  
Ecological concepts to aid understanding our environmental crisis and determining courses of action to correct the problem. Emphasis will be placed on specific problems of population, pollution, preservation of wildlife and wilderness, and open space. A historical appraisal of human attitudes toward the land and of the necessity of developing a new land ethic.

### BIOL 6L — Humans and the Environment Laboratory

2 Units  
Degree Applicable, CSU, UC  
108 hours lab  
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.

### BIOL 8 — Cell and Molecular Biology

4 Units  
Degree Applicable, CSU, UC  
54 hours lecture  
Prerequisite: BIOL 4 or BIOL 4H, and CHEM 50  
Introduction to cell and molecular biology including eukaryotic cells, eukaryotic organelles, protein structure and function; DNA and RNA structure and function; protein synthesis; genome organization in viruses, prokaryotes and eukaryotes; gene cloning: protein and DNA technology and applications of genetic engineering.

### BIOL 12A — Natural History of California

3 Units  
Degree Applicable, CSU  
36 hours lecture  
54 hours lab  
Field study of the natural history of the Sierra Nevada and adjacent regions. One 3 day and one 4 day weekend field trip will be required. Students may not receive credit for both BIOL 12A and GEOL 12A.
### Course Descriptions

**BIOL 12B — Natural History of California**  
3 Units  
Degree Applicable, CSU  
(May be taken for option of letter grade or Pass/No Pass)  
54 hours lab  
Field study of Peninsular Ranges, Transverse Ranges, Mojave and  
Colorado Deserts of southern California. Laboratory work is done during  
one 3-day and one 4-day weekend field trip. Students may not receive  
credit for both BIOL 12B and GEOL 12B.  

**BIOL 13 — Human Reproduction, Development and Aging**  
3 Units  
Degree Applicable, CSU, UC  
54 hours lecture  
Prerequisite: Eligibility for ENGL 68  
Provides a basic understanding of human development, from  
conception to death. Conception, growth, maturation and aging are  
studied as a natural continuum, influenced by our bio-physical and  
psycho-social environment. Several off-campus sites, related to course  
content, will be visited.  

**BIOL 15 — Human Sexuality**  
3 Units  
Degree Applicable, CSU, UC  
54 hours lecture  
Prerequisite: Eligibility for ENGL 68  
A survey of the biological, behavioral, cultural and ethical aspects of  
human sexuality.  

**BIOL 15H — Human Sexuality - Honors**  
3 Units  
Degree Applicable, CSU, UC  
54 hours lecture  
Prerequisite: Acceptance into the Honors Program  
A survey of the biological, behavioral, cultural and ethical aspects of  
human sexuality. An honors course designed to provide an enriched  
experience. Students may not receive credit for both BIOL 15 and BIOL 15H.  

**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 behavior (ethology.) Historical and evolutionary contexts are  
emphasized through a detailed consideration of the psychobiological,  
ecological, ontological and sociobiological determinants of animal  
behavior. Field trips may be required.  

**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  
60 hours laboratory  
environment. Emphasizes the structure and functional biology of marine  
invertebrates and vertebrates, ecology of intertidal organisms and  
ecology of estuaries. Field trips required.  

**BIOL 34 — Fundamentals of Genetics**  
3 Units  
Degree Applicable, CSU, UC  
54 hours lecture  
Prerequisite: BIOL 4  
Explores theory and applications of genetics. Major topics include  
Mendelian and molecular genetics, mechanisms of inheritance, gene  
expression, linkage and chromosome mapping, mutations and  
evolution, population genetics, and ethical and moral implications of  
DNA technology.  

**BIOL 50 — Biology Basic Skills**  
.5 Unit  
Not Degree Applicable  
(May be taken for Pass/No Pass only)  
9 hours lecture  
Basic skills needed for students to succeed in biological science classes.  
Topics include a contrast of the academic demands of science to  
non-science disciplines, preparation for biological laboratory experiences as  
well as lectures, development of personal study 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 practica, 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.  

**BTNY 3 — Plant Structures, Functions, and Diversity**  
5 Units  
(CAN BIOL06) Degree Applicable, CSU, UC  
108 hours lab  
Prerequisite: BIOL 1 or BIOL 4 and Eligibility for ENGL 1A  
An introduction to the structures, functions and comparative  
morphology, and phylogenetic relationships of organisms from bacteria  
to angiosperms with an emphasis on ethnobotany, evolution,  
classification, ecology and conservation. Several laboratory meetings are  
mandatory field trips, conducted off-campus, and students provide their  
own transportation.  

**BUSA 7 — Principles of Accounting - Financial**  
5 Units  
(CAN BUS02) Degree Applicable, CSU, UC  
90 hours lecture  
CAN BUS SEQ A  
Prerequisite: BUSA 11 or eligibility for MATH S1  
Introduction to financial accounting required of all Business  
Administration and Accounting majors which provides the foundation  
for continued coursework in accounting. Includes accounting concepts  
and techniques essential to the administration of a business enterprise,  
analyzing and recording financial transactions, accounting valuation and  
allocation practices and the preparation, analysis and interpretation of  
financial statements. Gives the student the tools and methods needed  
for decision making.  

**BUSA 11 — Fundamentals of Accounting**  
3 Units  
Degree Applicable  
54 hours lecture  
Prerequisite: BUSA 6B or eligibility for MATH S0  
Accounting vocabulary and theory, equations to solve word problems,  
percentages, simple and compound interest, payroll, business taxes,  
present value, investments, inventory, depreciation, financial statement  
analysis and ratios.
BUSA 21 — Cost Accounting  
4 Units  
Degree Applicable  
72 hours lecture  
18 hours lab  
Prerequisite: BUSA 8  
Practical and theoretical concepts of cost accounting. Includes variable and fixed costs, cost-volume-profit analysis, job order and process costing, activity-based costing, general and flexible budgeting, standard costs, product costing/pricing methods, cost allocation, inventory management, capital budgeting, and transfer pricing.

BUSA 52 — Intermediate Accounting  
3 Units  
Degree Applicable  
54 hours lecture  
Prerequisite: BUSA 8  
Detailed review of basic accounting concepts and principles and an in-depth analysis of the balance sheet and income statement. Emphasis is placed on the changing nature of principles and practices, the application of present-value concepts, the complexity of transactions that arise in a complex economic environment and the use of accounting information in decision making.

BUSA 53 — Ten-Key Calculations  
2 Units  
Degree Applicable  
18 hours lecture  
54 hours lab  
Prerequisite: BUSA 68 or eligibility for MATH 50  
Operation of electronic calculators by the touch method to solve business and accounting problems. Focuses on the application of calculator features to specific business concepts including banking records, payroll, invoice pricing and inventory.

BUSA 58 — Federal Income Tax Law  
3 Units  
Degree Applicable  
54 hours lecture  
Prerequisite: BUSA 7 or BUSA 72  
Federal and state income tax laws as related to individuals, partnership and corporation taxation including interpretations of recent changes. Emphasis is placed on individual income taxes and related problems in research through the use of a federal tax reporting service.

BUSA 68 — Business Mathematics  
3 Units  
Not Degree Applicable  
54 hours lecture  
Reviews addition, subtraction, multiplication, division, decimals, percentages, fractions, sign numbers, equations and problem solving.

BUSA 70 — Payroll and Tax Accounting  
3 Units  
Degree Applicable  
54 hours lecture  
Prerequisite: Eligibility for BUSA 11  
Examines all areas of on-the-job payroll accounting. Surveys the various tax procedures required by the employer and employee in filing the correct forms for Social Security, federal, and state income taxes and their reconciliation. Laws related to Worker's Compensation, State Disability Benefit Laws and Fair Employment Practices are discussed.

BUSA 71 — Financial Planning  
3 Units  
Degree Applicable, CSU  
54 hours lecture  
Functional approach to personal finance, including budget systems, consumer credit, health care and insurance, debt collection systems, status obligation, accumulating reserves. Examines short-term and long-term financial goals. Applicable for personal and professional use. Students may not earn credit for both BUSA 71 and FCS 80.

BUSA 72 — Bookkeeping - Accounting  
5 Units  
Degree Applicable  
90 hours lecture  
Prerequisite: BUSA 68 or eligibility for MATH 50  
Fundamental bookkeeping and accounting principles including the accounting cycle for service and merchandising companies, cash management, payroll and special journals. Computerized simulations and completion of a practice set.

BUSA 75 — Using Microcomputers in Financial Accounting  
1 Unit  
Degree Applicable  
18 hours lecture  
Prerequisite: BUSA 7 or BUSA 72  
Application of basic accounting concepts utilizing a computerized ledger software program. Hands-on use of a microcomputer to process accounting transactions, prepare statements and reports, and complete accounting cycle tasks. Completion of a computerized accounting practice set will be required.

BUSA 76 — Using Microcomputers in Managerial Accounting  
1 Unit  
Degree Applicable  
18 hours lecture  
Prerequisite: BUSA 7 or BUSA 72  
Analyze financial data and prepare managerial accounting reports using Excel software. Development of "what-if" formulas to be used as an aid in decision-making. Manufacturing and consolidation worksheets, financial statement analysis, and statement of cash flows.

BUSA 81 — Work Experience in Accounting  
1 to 4 Units  
Degree Applicable  
(May be taken four times for credit)  
(May be taken for Pass/No Pass only)  
75 to 300 hours lab  
Prerequisite: Compliance with Work Experience regulations as designated in the College Catalog  
Advisory: BUSA 7 or BUSA 72  
Provides accounting students with actual on-the-job experience in an approved work site which is related to classroom-based learning. A minimum of 75 paid clock hours or 60 non-paid clock hours per semester is required for each one unit of credit. Work experience placement is not guaranteed but assistance is provided. Students who repeat this course will improve skills through further instruction and practice.

BUSC 1A — Principles of Economics - Microeconomics  
3 Units  
(CAN ECON02)  
Degree Applicable, CSU, UC  
54 hours lecture  
Prerequisite: Eligibility for ENGL 1A  
Principles of aggregate economic analysis; economic cycles including recession, unemployment, inflation and economic growth; national income accounts; money and financial institutions; monetary and fiscal policy; alternative economic viewpoint; budget deficits and public debts; international trade and finance.

BUSC 1AH — Principles of Economics - Microeconomics  
3 Units  
Honors  
(CAN ECON02)  
Degree Applicable, CSU, UC  
54 hours lecture  
Prerequisite: Acceptance into the Honors Program  
Principles of aggregate economic analysis; economic cycles including recession, unemployment, inflation and economic growth; national income accounts; money and financial institutions; monetary and fiscal policy; alternative economic viewpoint; budget deficits and public debts; international trade and finance. An honors course designed to provide an enriched experience. Students may not receive credit for both BUSC 1A and BUSC 1AH.

BUSC 1B — Principles of Economics - Microeconomics  
3 Units  
(CAN ECON04)  
Degree Applicable, CSU, UC  
54 hours lecture  
Prerequisite: BUSC 1A or BUSC 1AH  
Economic analysis with emphasis on price and distribution theory, scarcity, opportunity costs, supply, demand, elasticity; cost theory; price and output determination under various market structures; factor markets; public choice; income distribution; externalities and government regulation; comparative economic systems.
BUSL 18H — Principles of Economics - Microeconomics 3 Units
(CAN ECON04) Degree Applicable, CSU, UC
54 hours lecture
Prerequisite: BUSC 1A or BUSC 1AH
Economic analysis with emphasis on price and distribution theory, scarcity, opportunity costs, supply, demand, elasticity; cost theory; price and output determination under various market structures; factor markets; public choice, income distribution, externalities and government regulations; comparative economic systems. An honors course designed to provide an enriched experience. Students may not receive credit for both BUS 18 and BUS 18H.

BUSL 19 — Advanced Business Law 3 Units
54 hours lecture
Advisory: BUSL 18
Principles of business law emphasizing commercial paper, agency, partnerships, corporations, bankruptcy, regulation of trade and real property.

BUSL 20 — International Business Law 3 Units
Degree Applicable
54 hours lecture
Advisory: Eligibility for ENGL 68
A comparative approach to the study of the international legal environment for business. Cultural, political, economic and ethical issues are emphasized as well as traditional business law subjects such as sales, commercial paper, corporate law, agency, licensing, employment, crimes, trade regulation and technology transfers.

BUSM 10 — Principles of Continuous Quality Improvement 3 Units
Degree Applicable
54 hours lecture
Advisory: Eligibility for ENGL 68 or BUSO 5
Comprehensive instruction in building and using Continuous Quality Improvement teams including selection of team members and evaluation of team performance. Includes creating and evaluating problem solutions, applying tools for improvement planning, team decision making, and building an effective improvement plan.

BUSM 12 — Continuous Quality Improvement Team Building 3 Units
(May be taken for option of letter grade or Pass/No Pass)
54 hours lecture
Advisory: BUSM 10
An overview of the rapidly changing international business environment, designed to provide a global perspective. Introduces global viewpoints across the full spectrum of business functions, including, but not limited to: accounting, finance, human resources, management, operations, production, purchasing, and strategic planning.

BUSM 50 — World Culture: A Business Perspective 3 Units
Degree Applicable, CSU
54 hours lecture
An overview of the effects of culture on business communication and interaction. Cultural roles and components are described and related to the business environment and the student's own culture.

BUSM 51 — Principles of International Business 3 Units
Degree Applicable, CSU
54 hours lecture
Advisory: Eligibility for ENGL 68 or BUSO 5
An overview of the rapidly changing international business environment, designed to provide a global perspective. Introduces global viewpoints across the full spectrum of business functions, including, but not limited to: accounting, finance, human resources, management, operations, production, purchasing, and strategic planning.

BUSM 60 — Human Relations in Business 3 Units
Degree Applicable, CSU
54 hours lecture
Advisory: Eligibility for ENGL 68 or BUSO 5
Acquaints the student with the vocabulary, acronyms and the basic information needed for an understanding of and participating in the exporting and importing of goods and services.

BUSM 62 — Human Resource Management 3 Units
Degree Applicable, CSU
54 hours lecture
Advisory: Eligibility for ENGL 68 or BUSO 5
Behavior, personality, self-management, self-development, and elementary business psychology as an aid to furthering the student's business advancement and lifelong learning. Class discussions focus on the student's understanding of intrapersonal and interpersonal effectiveness with emphasis on communications, motivation, leadership and other related areas.

BUSM 63 — Human Resource Management 3 Units
Degree Applicable, CSU
54 hours lecture
Advisory: Eligibility for ENGL 68 or BUSO 5
Behavior, personality, self-management, self-development, and elementary business psychology as an aid to furthering the student's business advancement and lifelong learning. Class discussions focus on the student's understanding of intrapersonal and interpersonal effectiveness with emphasis on communications, motivation, leadership and other related areas.

BUSM 66 — Business Organization and Management 3 Units
Degree Applicable, CSU
54 hours lecture
Advisory: BUSM 20
Functions of management, techniques of decision making and problem solving, and methods used by the manager to achieve organizational goals. Various theories of management, lines of authority, functions of departments, and the importance of policies, procedures, and controls are discussed.

BUSM 67 — Business Organization and Management 3 Units
Degree Applicable, CSU
54 hours lecture
Advisory: BUSM 20
Functions of management, techniques of decision making and problem solving, and methods used by the manager to achieve organizational goals. Various theories of management, lines of authority, functions of departments, and the importance of policies, procedures, and controls are discussed.
BUSM 66 — Small Business Management 3 Units
Degree Applicable, CSU
54 hours lab
Practical problems encountered in organizing and operating a small business enterprise; initiating the business, financial and administrative control, legal and government relationships and other related considerations.

BUSM 81 — Work Experience in Business 1 to 4 Units
Degree Applicable
(May be taken four times for credit)
(May be taken for Pass/No Pass only)
75 to 300 hours lab
Corequisite: BUSM 20 (may have been taken previously)
Provides business students with actual on-the-job experience in an approved worksite which is related to classroom-based learning. A minimum of 75 paid clock hours or 60 non-paid clock hours per semester is required for each one unit of credit. Work experience placement is not guaranteed but assistance is provided. Students who repeat this course will improve skills through further instruction and practice.

BUSM 85 — Special Issues in Business 2 Units
Degree Applicable
(May be taken two times for credit)
(May be taken for option of letter grade or Pass/No Pass)
36 hours lecture
Provide business majors with a forum to gain knowledge, develop techniques, problem solve and implement an actual business plan. Special emphasis will be placed on the particular project of the actual business used as the class project. Students who repeat this course will improve skills through further instruction and practice.

BUSINESS: OFFICE TECHNOLOGY

BUSO 5 — Business English 3 Units
Degree Applicable
54 hours lecture
Prerequisite: Eligibility for ENGL 68
Thorough training in the skills and techniques of English, as applied to business situations, with emphasis on effective paragraphs and memos.

BUSO 25 — Business Communications 3 Units
Degree Applicable, CSU
54 hours lecture
Prerequisite: ENGL 1A
Written communications including letters and memos meeting a variety of situations in the business environment. Includes writing of good news, bad news, sales, claims, and persuasive correspondence; letters and resumes appropriate to job seeking and application; and practising oral skills as applied to job interviews and business reports.

BUSO 26 — Oral Communications for Business 3 Units
Degree Applicable
(May be taken for option of letter grade or Pass/No Pass)
54 hours lecture
Designed to help business people communicate more effectively in spoken communication situations such as training sessions, presentations, and professional discussions.

BUSO 96A — Business Vocabulary 1.5 Units
Degree Applicable
(May be taken for option of letter grade or Pass/No Pass)
27 hours lecture
Develops a broad word command of new and specialized business vocabulary for use in various businesses. Improves vocabulary to enhance written and oral communication.

BUSINESS: PARALEGAL

PLGL 30 — Introduction to Paralegal/Legal Practice 3 Units
Degree Applicable, CSU
54 hours lecture
Basic knowledge required of paralegals. An overview of the federal and state legal systems, the relationship of paralegals to attorneys, an introduction to legal writing and research investigation of claims and legal ethics.

PLGL 31A — Legal Analysis and Writing 3 Units
Degree Applicable, CSU
54 hours lecture
Corequisite: PLGL 30 or BUSL 30 (may have been taken previously)
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
Degree Applicable, CSU
54 hours lecture
Prerequisite: PLGL 30 and PLGL 31A
Preparation of research memoranda, trial briefs, appellate briefs and other paralegal documents. Continuation of PLGL 31A, Legal Analysis and Writing.

PLGL 33A — Civil Procedure Pretrial 3 Units
Degree Applicable, CSU
54 hours lecture
Corequisite: PLGL 30 (may have been taken previously)
Analysis of the pretrial procedural steps to litigating a cause of action. Examines the concepts of jurisdiction, venue, parties to the action, summons, default judgments, and pleadings.

PLGL 33B — Civil Procedure-Trial and Post-Trial 3 Units
Degree Applicable, CSU
54 hours lecture
Prerequisite: PLGL 33A
Preparation 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
Degree Applicable, CSU
54 hours lecture
Advisory: PLGL 30
Examines procedures utilized by a paralegal in a law office. Includes knowledge of court systems, preparation and filing of legal papers and court documents, and drafting specialized documents in such areas as estate planning, real estate, divorce, unlawful detainer, adoption, corporations, conservatorships and guardianships.

PLGL 35B — Automated Law Office Procedures 3 Units
Degree Applicable
54 hours lecture
Prerequisite: PLGL 35A
Corequisite: PLGL 30 (may have been taken previously)
Use of the personal computer for special purposes in the law office; includes the drafting of pleadings, legal research, document control, preparation of billing, law office and case load management, and tax reports.

PLGL 36 — Paralegal Internship 1 Unit
Degree Applicable
(May be taken four times for credit)
(May be taken for Pass/No Pass only)
75 hours lab
Prerequisite: PLGL 31A, PLGL 31A, and PLGL 33A
Corequisite: PLGL 31B, PLGL 33B, PLGL 35B, PLGL 37, PLGL 39 (may have been taken previously)
Designed to provide the student with actual on-the-job experience in the paralegal profession which relates to student's classroom based learning. Placement is not guaranteed but assistance is provided by the paralegal faculty. A minimum of five hours per week of supervised work (minimum 75 paid clock hours or 60 non-paid clock hours per semester) is required. Students who repeat this course will improve skills through further instruction and practice.

PLGL 37 — Tort Law 3 Units
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.
### Course Descriptions

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Units</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>PLGL 38</td>
<td>Employment and Ethical Issues in Paralegalism</td>
<td>2</td>
<td>Degree Applicable</td>
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<tr>
<td></td>
<td>36 hours lecture</td>
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<tr>
<td></td>
<td>Prerequisite: PLGL 31A, PLGL 33A, and PLGL 35A</td>
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<tr>
<td></td>
<td>Corequisite: PLGL 31B, PLGL 33B, PLGL 35B, PLGL 37, PLGL 39 (may have been taken previously)</td>
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<td></td>
<td>Job search skills including preparation of professional resumes and cover letters. Interviewing techniques, networking, application of these skills in the search for paralegal employment, and paralegal and attorney ethics.</td>
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<tr>
<td>PLGL 39</td>
<td>Contract Law</td>
<td>3</td>
<td>Degree Applicable, CSU</td>
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<tr>
<td></td>
<td>54 hours lecture</td>
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<tr>
<td>PLGL 40</td>
<td>Landlord-Tenant Law</td>
<td>3</td>
<td>Degree Applicable, CSU</td>
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<tr>
<td></td>
<td>54 hours lecture</td>
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<td></td>
<td>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.</td>
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<tr>
<td>PLGL 41</td>
<td>Property Law</td>
<td>3</td>
<td>Degree Applicable, CSU</td>
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<td></td>
<td>54 hours lecture</td>
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<td></td>
<td>Examination of the law relating to real and personal property. Analysis of the various forms of ownership of real property; easements, covenants, conditions, and licenses; constitutional questions; types of real estate deeds; and land use controls.</td>
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<tr>
<td>PLGL 42</td>
<td>Family Law</td>
<td>3</td>
<td>Degree Applicable, CSU</td>
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<td></td>
<td>54 hours lecture</td>
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<td></td>
<td>Laws relating to marriage, dissolution, nullity, and legal separation. Includes topics of community property, child custody, child support, spousal support, and prenuptial/antenuptial agreements.</td>
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<tr>
<td>PLGL 43</td>
<td>Wills and Trusts</td>
<td>3</td>
<td>Degree Applicable, CSU</td>
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<td></td>
<td>54 hours lecture</td>
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<td></td>
<td>Legal principles of the laws of wills and trusts, organization and jurisdiction of the California Probate Courts, estate planning and estate taxes.</td>
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<tr>
<td>PLGL 44</td>
<td>Bankruptcy Law</td>
<td>3</td>
<td>Degree Applicable, CSU</td>
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<td></td>
<td>54 hours lecture</td>
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<td>Creation, scope, and administrative function of federal bankruptcy proceedings and arrangements. Includes wage earner plans and involuntary proceedings.</td>
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<tr>
<td>PLGL 45</td>
<td>Creditors’ Rights</td>
<td>3</td>
<td>Degree Applicable, CSU</td>
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<td></td>
<td>54 hours lecture</td>
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<tr>
<td></td>
<td>Creation, perfection, and enforcement of security interests in property. Unsecured creditors and their methods of enforcing rights and obtaining judgments.</td>
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<tr>
<td>PLGL 47A</td>
<td>Litigation Procedures</td>
<td>3</td>
<td>Degree Applicable, CSU</td>
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<td></td>
<td>54 hours lecture</td>
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<td></td>
<td>Overview of litigation procedures. Description of a trial and trial presentations are emphasized. Preparation of opening statements, direct and cross examinations, and closing statements. Elements of oral argument are examined. Methods of responding to questioning are analyzed.</td>
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<tr>
<td>PLGL 47B</td>
<td>Litigation Practice</td>
<td>1.5</td>
<td>Degree Applicable, CSU</td>
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<td></td>
<td>27 hours lecture</td>
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<td></td>
<td>Students will present a case and evaluate the effectiveness of their presentation. Continuous revision of opening arguments, closing arguments, direct examinations, and cross-examinations.</td>
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<tr>
<td>PLGL 48</td>
<td>Criminal Law and Procedures</td>
<td>3</td>
<td>Degree Applicable, CSU</td>
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<td></td>
<td>54 hours lecture</td>
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<td></td>
<td>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.</td>
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<td>PLGL 49</td>
<td>Evidence Law</td>
<td>3</td>
<td>Degree Applicable, CSU</td>
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<td></td>
<td>54 hours lecture</td>
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<td>Overview of evidence law in civil and criminal cases; principles of relevancy and competence of evidence; hearsay and character evidence rules; evidentiary privileges; use and authentication of writings. Use of evidence at trial, burdens of proof and presumptions, constitutional issues.</td>
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<tr>
<td>PLGL 50</td>
<td>Comparative Law</td>
<td>3</td>
<td>Degree Applicable</td>
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<td></td>
<td>54 hours lecture</td>
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<td>Advisory: Eligibility for ENGL 1A</td>
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<td>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.</td>
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<tr>
<td>BUSR 50</td>
<td>Real Estate Principles</td>
<td>3</td>
<td>Degree Applicable, CSU</td>
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<tr>
<td></td>
<td>54 hours lecture</td>
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<td>Introductory real estate law, public control, property valuation, finance and real estate practice. Meets some of the California Real Estate Salesperson and Broker License requirements and meets 30 hours toward Basic Appraisal Procedures 2008 Appraiser Qualifications Board (AWB) requirements for certified-residential/certified-general appraiser license. Also provides 30 hours toward office of real estate Appraisers (OREA) requirements for state licensing.</td>
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<tr>
<td>BUSR 51</td>
<td>Legal Aspects of Real Estate</td>
<td>3</td>
<td>Degree Applicable, CSU</td>
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<td></td>
<td>54 hours lecture</td>
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<td>Corequisite: BUSR 50 (may have been taken previously) or employment in the real estate field.</td>
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<tr>
<td>BUSR 52</td>
<td>Real Estate Practice</td>
<td>3</td>
<td>Degree Applicable, CSU</td>
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<td></td>
<td>54 hours lecture</td>
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<td>Corequisite: BUSR 50 (may have been taken previously) or employment in the real estate field Office procedures and practices in listings, advertising, prospecting, financing, exchanges, property management, salesmanship, land utilization and public relations. A course in real estate practice must be completed within 18 months of licensure.</td>
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<tr>
<td>BUSR 52D</td>
<td>Real Estate Practice Work Experience</td>
<td>3</td>
<td>Degree Applicable</td>
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<td>(May be taken four times for credit)</td>
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<td>225 hours lab</td>
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<td>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.</td>
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<td>BUSR 53</td>
<td>Real Estate Finance</td>
<td>3</td>
<td>Degree Applicable, CSU</td>
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<td>54 hours lecture</td>
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<td>Prerequisite: BUSR 50 or employment in the real estate field Real estate financing sources, loans underwriting, applications, and appraisals. Can be used to meet the additional educational requirement of the salesperson or broker license.</td>
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</table>
State of California as well as mortgage lending history and process. May govern the practice of mortgage loan brokerage and lending in the
Overview of the technical knowledge of the State and Federal laws that be used as an elective for the salesperson or broker license.

BUSR 55 — Real Estate Economics 3 Units
Degree Applicable
54 hours lecture
Prerequisite: BUSR 50 or employment in the real estate field
Analysis of international, national and local factors which determine the value of real estate. Required by the DRE for the real estate broker license and may be used as the elective course for the salesperson license.

BUSR 57 — Income Tax Aspects of Real Estate Investments 3 Units
Degree Applicable
54 hours lecture
Current income tax principles governing the acquisition, ownership, operation and disposition of real property investments with special emphasis on tax planning and integration of tax concepts with procedural aspects. May be used as an elective course to satisfy one of the California Department of Real Estate's requirements for the salesperson or broker license.

BUSR 59 — Real Estate Property Management 3 Units
Degree Applicable
54 hours lecture
Prerequisite: BUSR 50
Property management for owners and managers of residential and commercial income properties. Meets California real estate license requirements for salesperson and broker.

BUSR 60 — Real Estate Investment Planning 3 Units
Not Degree Applicable
54 hours lecture
Prerequisite: BUSR 50 or employment in the real estate field
A comprehensive analysis of various investment strategies, techniques, systems, and theories involving all forms of real estate with particular emphasis on research methods needed for successful investing.

BUSR 62 — Mortgage Loan Brokering and Lending 3 Units
Degree Applicable
54 hours lecture
Overview of the technical knowledge of the State and Federal laws that govern the practice of mortgage loan brokerage and lending in the State of California as well as mortgage lending history and process. May be used as an elective for the salesperson or broker license.

BUSR 76 — Escrow Procedures I 3 Units
Degree Applicable
54 hours lecture
A case study method of escrow procedures including processing of sale escrows with and without new trust deed financing; learning and using the vocabulary of escrow; drawing of documents; and other processing details pertinent to handling escrows from inception to closing. May be used as an elective for the salesperson or broker license.

BUSR 77 — Escrow Procedures II 3 Units
Degree Applicable
54 hours lecture
Prerequisite: BUSR 76
Advanced escrow procedures covering the more unusual and difficult types of escrows and evaluating the possible solutions. Emphasis on practical processing of real estate sale and loan transactions with some personal property sales. Designed to assist those either directly or indirectly connected with the escrow industry.

BUSR 80 — Appraisal: Principles and Procedures 3.5 Units
Degree Applicable
63 hours lecture
Principles and procedures of appraising real property with emphasis on residential properties. Required by Office of Real Estate Appraisers (OREA) for all appraisal licenses and by the Department of Real Estate (DRE) for real estate broker license. Provides 60 hours toward OREA requirements for state licensing. Includes all topics listed in Appraisal Qualifications Board (AQB) Basic Appraisal Principles and Basic Appraisal Procedures modules. May be used as the elective course for the salesperson license.

BUSR 81 — Appraisal: Principles and Procedures 3.5 Units
Degree Applicable
63 hours lecture
Principles and procedures of appraising real property with emphasis on residential properties. Required by Office of Real Estate Appraisers (OREA) for all appraisal licenses and by the Department of Real Estate (DRE) for real estate broker license. Provides 60 hours toward OREA requirements for state licensing. Includes all topics listed in Appraisal Qualifications Board (AQB) Basic Appraisal Principles and Basic Appraisal Procedures modules. May be used as the elective course for the salesperson license.

BUSR 82 — USPAP 1 Unit
Not Degree Applicable
18 hours lecture
Emphasizes appraisal standards and professional ethics. Meets the nationwide Uniform Standards of Professional Appraisal Practice (USPAP) requirement for initial licensing by the Office of Real Estate Appraisers (OREA).

BUSR 83 — Residential Appraisal 3.5 Units
Not Degree Applicable
63 hours lecture
Includes all topics listed in Appraisal Qualifications Board (AQB) Modules: Residential Market Analysis and Highest and Best Use, Residential Appraiser Site Valuation and Cost Approach, and Residential Sales Comparison and Income Approaches. Required by Office of Real Estate Appraisers (OREA) for all appraisal licenses and provides 60 hours toward OREA requirements for appraisal licensing. May be used as the elective course for the salesperson license or the required appraisal course for broker license.

BUSR 84 — Residential Appraisal: Case Studies 2.5 Units
Not Degree Applicable
45 hours lecture

BUSR 85 — Commercial Appraisal 3.5 Units
Not Degree Applicable
63 hours lecture
Includes all topics listed in Appraisal Qualifications Board (AQB) Modules: Commercial Market Analysis and Highest and Best Use, Commercial Appraiser Site Valuation and Cost Approach, and Commercial Sales Comparison and Income Approaches. Required by Office of Real Estate Appraisers (OREA) for all appraisal licenses and provides 60 hours toward OREA requirements for appraisal licensing. May be used as the elective course for the salesperson license or the required appraisal course for broker license.

BUSR 86 — Commercial Appraisal 3.5 Units
Not Degree Applicable
63 hours lecture
Includes all topics listed in Appraisal Qualifications Board (AQB) Modules: Commercial Market Analysis and Highest and Best Use, Commercial Appraiser Site Valuation and Cost Approach, and Commercial Sales Comparison and Income Approaches. Required by Office of Real Estate Appraisers (OREA) for all appraisal licenses and provides 60 hours toward OREA requirements for appraisal licensing. May be used as the elective course for the salesperson license or the required appraisal course for broker license.

BUSR 87 — Commercial Appraisal: Case Studies 2.5 Units
Not Degree Applicable
45 hours lecture
Emphasizes commercial appraisal case studies, report writing, statistics, modeling, and finance. Required by Office of Real Estate Appraisers (OREA) for all appraisal licenses. Provides 45 hours toward OREA requirements for state licensing. Includes all topics listed in Appraisal Qualifications Board (AQB) Modules: Commercial Market Analysis and Case Studies, Statistics, Modeling, and Finance; and Advanced Residential Applications and Case Studies.

BUSR 88 — Commercial Appraisal: Case Studies 2.5 Units
Not Degree Applicable
45 hours lecture
Emphasizes commercial appraisal case studies, report writing, statistics, modeling, and finance. Required by Office of Real Estate Appraisers (OREA) for all appraisal licenses. Provides 45 hours toward OREA requirements for state licensing. Includes all topics listed in Appraisal Qualifications Board (AQB) Modules: Commercial Market Analysis and Case Studies, Statistics, Modeling, and Finance; and Advanced Residential Applications and Case Studies.

BUSR 89 — Commercial Appraisal: Case Studies 2.5 Units
Not Degree Applicable
45 hours lecture
Emphasizes commercial appraisal case studies, report writing, statistics, modeling, and finance. Required by Office of Real Estate Appraisers (OREA) for all appraisal licenses. Provides 45 hours toward OREA requirements for state licensing. Includes all topics listed in Appraisal Qualifications Board (AQB) Modules: Commercial Market Analysis and Case Studies, Statistics, Modeling, and Finance; and Advanced Residential Applications and Case Studies.
### CHEMISTRY

**CHEM 10 — Chemistry for Allied Health Majors** 4 Units  
(CAN CHEM06)  
Degree Applicable, CSU, UC  
54 hours lecture  
72 hours lab  
Prerequisite: Eligibility for MATH 71  
Principles of inorganic chemistry including measurements, structure, nomenclature, reactions, radioactivity, energy, properties of matter, acids/bases and solutions. For Allied Health majors such as nursing, dental hygiene, radiation technology. Completion does not give eligibility for CHEM 50.

**CHEM 20 — Introductory Organic and Biochemistry** 5 Units  
(CAN CHEM08)  
Degree Applicable, CSU, UC  
54 hours lecture  
108 hours lab  
Prerequisite: CHEM 10 or CHEM 40  
Nomenclature, structure, function and reactions of major classes of organic compounds and of biomolecules, including amino acids, lipids, carbohydrates, nucleic acids and proteins. Structure and function of vitamins, coenzymes and enzymes. Metabolic pathways and biochemical energy.

**CHEM 40 — Introduction to General Chemistry** 5 Units  
(CAN CHEM06)  
Degree Applicable, CSU, UC  
CAN CHEM SEQ B  
54 hours lecture  
72 hours lab  
Prerequisite: Eligibility for ENGL 1A  
Introduction to measurements, structure and properties of matter, writing/balancing equations, stoichiometry, properties and behavior of gases, and properties of solutions. For science/engineering majors preparing for admission into General Chemistry (CHEM 50).

**CHEM 50 — General Chemistry I** 5 Units  
(CAN CHEM02)  
Degree Applicable, CSU, UC  
CAN CHEM SEQ A  
54 hours lecture  
108 hours lab  
Prerequisite: CHEM 40 or satisfactory score on the Chemistry Placement Exam and (MATH 71, 71B or 71X or equivalent)  
The application of the laws, theories and principles presented in CHEM 50 to a variety of chemical systems. Topics include kinetics, equilibrium, thermodynamics, acid-base and oxidation-reduction reactions, transition metals, electrochemistry and nuclear chemistry. Emphasis is on critical thinking and mathematical problem-solving.

**CHEM 50H — General Chemistry I - Honors** 5 Units  
Degree Applicable, CSU, UC  
54 hours lecture  
108 hours lab  
Prerequisite: Acceptance into the Honors Program. Also (CHEM 40 or satisfactory score on the Chemistry Placement Exam) and (MATH 71, 71B or 71X or equivalent)  
Topics in general chemistry such as scientific method, measurements, nomenclature, formulas and equations, reaction patterns, stoichiometry, thermodynamic processes, periodic trends, atomic structure, molecular bonding and geometry, properties of gases, liquids, solids and solutions. Emphasis is on critical thinking and mathematical problem-solving using dimensional analysis. Hands-on laboratory experiments use computer and calculator-based technologies in data collection and analysis. Introduces techniques of scientific writing. An honors course designed to provide an enriched experience. Students may not receive credit for both CHEM 50 and CHEM 50H.

**CHEM 51 — General Chemistry II** 5 Units  
(CAN CHEM04)  
Degree Applicable, CSU, UC  
CAN CHEM SEQ A  
54 hours lecture  
108 hours lab  
Prerequisite: CHEM 50 or CHEM 50H  
The application of the laws, theories and principles presented in CHEM 50 to a variety of chemical systems. Topics include kinetics, equilibrium, thermodynamics, acid-base and oxidation-reduction reactions, transition metals, electrochemistry and nuclear chemistry. Emphasis is on critical thinking and mathematical problem-solving. Laboratory experiments use computer and calculator-based technologies in data acquisition and analysis.

**CHEM 60 — Quantitative Chemical Analysis** 5 Units  
Degree Applicable, CSU, UC  
54 hours lecture  
108 hours lab  
Prerequisite: CHEM 50 or CHEM 50H  
Techniques of gravimetric, volumetric and instrumental analysis. Precision in measurements, computations, accurate record keeping and report writing. General procedures, skills, methods, practices, philosophies, terminologies and ethics found in industrial, governmental and academic laboratories.

**CHEM 75 — Instrumental Analysis** 5 Units  
Degree Applicable  
54 hours lecture  
108 hours lab  
Prerequisite: CHEM 51  
Introduction to a variety of instruments used in chemical industries. Includes theory, hands-on experience and basic maintenance of chemical instrumentation.
CHEM 80 — Organic Chemistry 5 Units
Degree Applicable, CSU, UC
54 hours lecture
108 hours lab
Prerequisite: CHEM 51
Designed for chemistry, biochemistry, chemical engineering and biology majors; also for those in pre-professional programs such as medicine, veterinary medicine, dentistry, optometry and pharmacy. Structure/reactivity relationships, energetics, reactions, reaction mechanisms, synthesis, separation, characterization and spectroscopic methods for organic compounds. To assure that all content material is covered, it is recommended that students complete the entire one-year sequence at one campus prior to transfer.

CHEM 81 — Organic Chemistry 5 Units
Degree Applicable, CSU, UC
54 hours lecture
108 hours lab
Prerequisite: CHEM 80
Continuation of CHEM 80. Designed for chemistry, biochemistry, chemical engineering and biology majors; also for those in pre-professional programs such as medicine, veterinary medicine, dentistry, optometry and pharmacy. Structure/reactivity relationships, energetics, reactions, reaction mechanisms, synthesis, separation, characterization and spectroscopic methods 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 99 — Special Projects in Chemistry 2 Units
(May be taken four times for credit)
36 hours lecture
In order to offer students the opportunity to explore their disciplines to greater depth, the various departments from time to time offer Special Projects courses. The content of each course and the methods of study vary from semester to semester, and depend on the particular project under consideration. Students must have an instructor's authorization before enrolling in this class. Students repeating this course will make individual contracts of a more advanced nature to ensure that proficiencies are enhanced.

CHLD 5 — Principles/Practices in Child Development Programs 3 Units
Degree Applicable, CSU
54 hours lecture
Overview of early child development programs: their histories, philosophies and emphases; methods of guidance and discipline, licensing and regulations for state, federal and private programs. Reviews philosophies of educating young children and learning, while examining developmentally appropriate practices, including the influence of culture and inclusive environments on the developing child. Explores career paths, professional growth, and ethics. Student assignments involve ten hours outside of class time observation and participation in children's programs.

CHLD 6 — Survey of Child Development Curriculum 3 Units
Degree Applicable, CSU
54 hours lecture
Prerequisite: CHLD 5 or CHLD 10
Overview of curriculum design for early childhood programs, including planning, implementation and evaluation of curriculum, and observing the interaction of play and development of the whole child. Organization of materials, curriculum areas, and resources are explored.

CHLD 10 — Child Growth and Development 3 Units
Degree Applicable, CSU
54 hours lecture
Prerequisites: CHEM 51
Overviews growth processes from conception to adulthood. Meets requirements for Title 22 and Title V Regulations pertaining to Child Development Permit. Out-of-class observations and interviews required. TB test required.

CHLD 10H — Child Growth and Development - Honors 3 Units
Degree Applicable, CSU
54 hours lecture
Prerequisite: Acceptance into the Honors Program
Developmental approach to the study of the child identifying forces affecting growth processes from conception through adulthood. Meets requirements for Title 22 and Title V Regulations pertaining to Child Development Permit. Out-of-class observations and interviews required. An honors course designed to provide an enriched experience for accelerated students. Students may not receive credit for both CHLD 10 and CHLD 10H. TB test required.

CHLD 11 — Child, Family, School and Community 3 Units
Degree Applicable, CSU, UC
54 hours lecture
Prerequisite: Eligibility for ENGL 68
Child development is presented as the interaction and collaboration between children, parents, family, school and community. Studies of family systems in contemporary society as they impact children and their individual heritage, diverse culture, ability and language. Examines the value of communication, the development of child advocacy skills and the ability to use community resources to empower families and children.

CHLD 51 — Early Literacy in Child Development 3 Units
Degree Applicable, CSU
54 hours lecture
Advisory: CHLD 1
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 and the role of language and literacy acquisition. Issues of early literacy in public policy are reviewed. TB test/observations required.

CHLD 52 — Language Arts and Art Media for Young Children 3 Units
Degree Applicable, CSU
54 hours lecture
Language and literacy development of young children (birth to 6 years) is explored through developmentally appropriate activities. Language study, games and play. Describes the role of creative art in the curriculum in relationship to the child's development and creativity. Emphasizes ways to develop an inclusive educationally, linguistically, and culturally appropriate learning environment which encourages the child's use of senses and builds an awareness of aesthetic materials.

CHLD 61 — Creative Sciencing and Math for Young Children 3 Units
Degree Applicable, CSU
54 hours lecture
Advisory: CHLD 61
Exploration of child development programs and the role of music and movement in a child's development. Emphasizes students development in practical activities including making music, movement, singing and musical instruments.

CHLD 63 — Creative Sciencing and Math for Young Children 3 Units
Degree Applicable, CSU
54 hours lecture
Advisory: Eligibility for ENGL 68
Exploration of children's thinking processes and problem solving abilities as they become aware of the physical world. Discussion, planning, and creating basic science and math experiences. Emphasizes creative aspects of math and science.

CHLD 64 — Health, Safety and Nutrition of Young Children 3 Units
Degree Applicable, CSU
54 hours lecture
Advisory: CHLD 1
Examines the relationship between a child's health status, safe learning environments, and proper nutrition. Emphasizes the role of a child's health status in protective health care, legal and ethical reporting of abuse, and assisting families to access community services while supporting family practices.

CHLD 65 — Health, Safety and Nutrition of Young Children 3 Units
Degree Applicable, CSU
54 hours lecture
Examines the relationship between a child's health status, safe learning environments, and proper nutrition. Emphasizes the role of a child's health status in protective health care, legal and ethical reporting of abuse, and assisting families to access community services while supporting family practices.

CHLD 66 — Health, Safety and Nutrition of Young Children 3 Units
Degree Applicable, CSU
54 hours lecture
Examines the relationship between a child's health status, safe learning environments, and proper nutrition. Emphasizes the role of a child's health status in protective health care, legal and ethical reporting of abuse, and assisting families to access community services while supporting family practices.

CHLD 67 — Health, Safety and Nutrition of Young Children 3 Units
Degree Applicable, CSU
54 hours lecture
Examines the relationship between a child's health status, safe learning environments, and proper nutrition. Emphasizes the role of a child's health status in protective health care, legal and ethical reporting of abuse, and assisting families to access community services while supporting family practices.

CHLD 68 — Health, Safety and Nutrition of Young Children 3 Units
Degree Applicable, CSU
54 hours lecture
Examines the relationship between a child's health status, safe learning environments, and proper nutrition. Emphasizes the role of a child's health status in protective health care, legal and ethical reporting of abuse, and assisting families to access community services while supporting family practices.

CHLD 69 — Health, Safety and Nutrition of Young Children 3 Units
Degree Applicable, CSU
54 hours lecture
Examines the relationship between a child's health status, safe learning environments, and proper nutrition. Emphasizes the role of a child's health status in protective health care, legal and ethical reporting of abuse, and assisting families to access community services while supporting family practices.

CHLD 70 — Health, Safety and Nutrition of Young Children 3 Units
Degree Applicable, CSU
54 hours lecture
Examines the relationship between a child's health status, safe learning environments, and proper nutrition. Emphasizes the role of a child's health status in protective health care, legal and ethical reporting of abuse, and assisting families to access community services while supporting family practices.

CHLD 71 — Health, Safety and Nutrition of Young Children 3 Units
Degree Applicable, CSU
54 hours lecture
Examines the relationship between a child's health status, safe learning environments, and proper nutrition. Emphasizes the role of a child's health status in protective health care, legal and ethical reporting of abuse, and assisting families to access community services while supporting family practices.

CHLD 72 — Health, Safety and Nutrition of Young Children 3 Units
Degree Applicable, CSU
54 hours lecture
Examines the relationship between a child's health status, safe learning environments, and proper nutrition. Emphasizes the role of a child's health status in protective health care, legal and ethical reporting of abuse, and assisting families to access community services while supporting family practices.

CHLD 73 — Health, Safety and Nutrition of Young Children 3 Units
Degree Applicable, CSU
54 hours lecture
Examines the relationship between a child's health status, safe learning environments, and proper nutrition. Emphasizes the role of a child's health status in protective health care, legal and ethical reporting of abuse, and assisting families to access community services while supporting family practices.

CHLD 74 — Health, Safety and Nutrition of Young Children 3 Units
Degree Applicable, CSU
54 hours lecture
Examines the relationship between a child's health status, safe learning environments, and proper nutrition. Emphasizes the role of a child's health status in protective health care, legal and ethical reporting of abuse, and assisting families to access community services while supporting family practices.

CHLD 75 — Health, Safety and Nutrition of Young Children 3 Units
Degree Applicable, CSU
54 hours lecture
Examines the relationship between a child's health status, safe learning environments, and proper nutrition. Emphasizes the role of a child's health status in protective health care, legal and ethical reporting of abuse, and assisting families to access community services while supporting family practices.
### Course Descriptions

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Degree Applicable</th>
<th>CSU</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHLD 66</td>
<td>Early Childhood Development Observation</td>
<td>2</td>
<td>Degree Applicable, CSU</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(May be taken two times for credit)</td>
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<td>(May be taken for option of letter grade or Pass/No Pass)</td>
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<tr>
<td></td>
<td>36 hours lecture</td>
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<tr>
<td></td>
<td>Prerequisite: CHLD 6 and CHLD 66</td>
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<tr>
<td></td>
<td>Corequisite: CHLD 67</td>
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<tr>
<td></td>
<td>Application of knowledge of child development principles in the</td>
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<tr>
<td></td>
<td>preschool children's classroom setting and recognition of skills necessary</td>
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<tr>
<td></td>
<td>for the teacher of young children. Evaluation of participation</td>
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<tr>
<td></td>
<td>experiences.</td>
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<tr>
<td>CHLD 67</td>
<td>Early Childhood Development Participation</td>
<td>2</td>
<td>Degree Applicable, CSU</td>
<td></td>
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<tr>
<td></td>
<td>63 hours lab</td>
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<tr>
<td></td>
<td>Prerequisite: CHLD 6 and CHLD 66</td>
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<td></td>
<td>Corequisite: CHLD 67</td>
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<td></td>
<td>Teaching experiences in the preschool children's classroom related to</td>
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<td></td>
<td>creating environment, managing program, preparing materials, planning</td>
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<td></td>
<td>and carrying out activities for individual children and groups of children.</td>
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<tr>
<td>CHLD 68</td>
<td>Children With Special Needs</td>
<td>3</td>
<td>Degree Applicable, CSU</td>
<td></td>
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<tr>
<td></td>
<td>54 hours lecture</td>
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<tr>
<td></td>
<td>Prerequisite: CHLD 10 or CHLD 10H</td>
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<td>Characteristics of the needs of typically and atypically developing</td>
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<td>children in areas of cognitive, physical, neurological, emotional and</td>
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<tr>
<td></td>
<td>social development. Identifies legal requirements, current issues,</td>
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<td>community resources and the IEP/IFSP process. Emphasizes modifications,</td>
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<td>adaptations, accommodations and teaching techniques involved in the</td>
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<td>inclusive classroom. Required observations in community agencies.</td>
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</tbody>
</table>

### CHLD 69 — Early Childhood Development Field Work Seminar

- **Units**: 2
- **Degree Applicable, CSU**: Degree Applicable
- **Type of Credit**: May be taken for option of letter grade or Pass/No Pass
- **Type of Grade Basis**: May be taken two times for credit

- **54 hours lecture**
- **Prerequisite**: CHLD 67, CHLD 67L
- **Corequisite**: CHLD 91
- **Assigned Topics**
  - Emphasis on observation of children's behavior and its significance in understanding child development principles.
  - Focus will be on the interaction of the preschool child with the environment and with significant people.

### CHLD 70 — Management/Marketing/Personnel for ECD Programs

- **Units**: 3
- **Degree Applicable, CSU**: Degree Applicable

- **54 hours lecture**
- **Prerequisite**: CHLD 71A
- **Corequisite**: CHLD 71A
- **Assigned Topics**
  - Focus on the interaction of the preschool child with the environment and significance in understanding child development principles.
  - Emphasis on observation of children's behavior and its recognition in the lab school. The holistic approach to child study is emphasized.
  - Students synthesize information which they have recorded and relate it to different areas of the preschool child's growth and development.

### CHLD 71A — Work Seminar

- **Units**: 3
- **Degree Applicable, CSU**: Degree Applicable

- **54 hours lecture**
- **Prerequisite**: CHLD 71A, CHLD 67L
- **Corequisite**: CHLD 91
- **Assigned Topics**
  - Focus on the interaction of the preschool child with the environment and significance in understanding child development principles.
  - Emphasis on observation of children's behavior and its recognition in the lab school. The holistic approach to child study is emphasized.
  - Students synthesize information which they have recorded and relate it to different areas of the preschool child's growth and development.

### CHLD 71A — Administration of Child Development Programs

- **Units**: 3
- **Degree Applicable, CSU**: Degree Applicable

- **54 hours lecture**
- **Prerequisite**: CHLD 71A
- **Corequisite**: CHLD 71A
- **Assigned Topics**
  - Focus on the interaction of the preschool child with the environment and significance in understanding child development principles.
  - Emphasis on observation of children's behavior and its recognition in the lab school. The holistic approach to child study is emphasized.
  - Students synthesize information which they have recorded and relate it to different areas of the preschool child's growth and development.

### CHLD 71A — Child Development and Advocacy

- **Units**: 1
- **Degree Applicable, CSU**: Degree Applicable

- **18 hours lecture**
- **Prerequisite**: CHLD 71A
- **Corequisite**: CHLD 71A
- **Assigned Topics**
  - Focus on the interaction of the preschool child with the environment and significance in understanding child development principles.
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- **Corequisite**: CHLD 71A
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- **Corequisite**: CHLD 71A
- **Assigned Topics**
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  - Students synthesize information which they have recorded and relate it to different areas of the preschool child's growth and development.
CHLD 84 — Guidance and Discipline in Child Development Settings 1 Unit
Degree Applicable, CSU
18 hours lecture
Advisory: CHLD 5
Problem solving approach to guidance and discipline of children in child development settings. Investigation of appropriate developmental and attitudinal aspects of producing a respectful environment between children, caregivers and parents.

CHLD 85 — Infants At Risk 3 Units
Degree Applicable
54 hours lecture
Prerequisite: CHLD 64 and CHLD 73
Advisory: CHLD 5
Principles and methods of working with infants and toddlers who are disabled or at-risk in the early childhood setting. Emphasis is placed on issues affecting normal development prevention, intervention, referrals and transition to school. Course will prepare teachers of young children for appropriate planning in these settings.

CHLD 91 — Early Childhood Development Field Work 1 Unit
Degree Applicable, CSU
(54 may be taken for Pass/No Pass only)
75 hours lab
Prerequisite: CHLD 67 and CHLD 67L
Advisory: CHLD 69
A teacher-supervised work experience course which permits students to apply early childhood development principles in community preschools. CHLD 69 Seminar will supplement student's progress. A minimum of 75 paid or 60 non-paid clock hours per semester of supervised work is required for each unit of credit. It is recommended that the hours per week be equally distributed throughout the semester.

CHLD 92 — Family Child Care 3 Units
Degree Applicable
54 hours lecture
Advisory: CHLD 1, 5, 6 and 10
An overall view of home-based early education programs which includes standards of quality for the field of family child care in relationships, environments, activities, developmental learning goals, safety/health, professional and business practices.

CHINESE

CHIN 2 — Continuing Elementary Chinese 4 Units
Degree Applicable, CSU, UC
(CAN CHIN04)
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
(CAN CHIN08)
72 hours lecture
Prerequisite: CHIN 2 or equivalent
Further development of Mandarin Chinese language skills and their use as tools in exploring Chinese civilization. Further study and review of grammar, exercises in word building, derivation, and the extension of the active and recognition vocabularies.

CHIN 4 — Continuing Intermediate Chinese 4 Units
Degree Applicable, CSU, UC
72 hours lecture
Prerequisite: CHIN 3 or equivalent
Enables students to use Mandarin in traveling, telling stories, describing experiences and discussing Chinese literary works, festivals and food. Students learn advanced grammar such as the directional and potential complements, repetition of adjectives, the focus construction, the bang and bei structures.

COMP 1 — Computer Keyboarding 4 Units
Degree Applicable, CSU
54 hours lecture
54 hours lab
Develops basic alpha/numeric keyboarding skills on a personal computer; develops a straight-copy rate of 25 to 40 gross words a minute with a predetermined error limit and includes keyboarding of letters, tables, and manuscripts.

COMP 1A — Computer Keyboarding 2 Units
Degree Applicable, CSU
72 hours lecture
72 hours lab
Develops basic alpha/numeric keyboarding with skills on a personal computer; develops a straight-copy rate of 25 to 30 gross words a minute with a predetermined error limit.

COMP 1B — Computer Keyboarding 2 Units
Degree Applicable, CSU
27 hours lecture
27 hours lab
Advisory: COMP 1A or BUSO 1A, or ability to type 20 wpm with test verification at first class meeting
Develops a straight-copy rate of 25 to 40 gross words a minute with a predetermined error limit and includes keyboarding of letters, tables, and manuscripts.

COMP 2 — Intermediate Computer Keyboarding 4 Units
Degree Applicable, CSU
54 hours lecture
54 hours lab
Prerequisite: COMP 1 or COMP 1B or BUSO 1 or BUSO 1B, or one year of high school keyboarding
Develops computer keyboarding speed and accuracy with a proficiency standard upon completion of 35-55 gross words a minute with a predetermined error limit. Using word processing software, extensive instruction given for formatting of letters, memos, reports, tables and other related business documents.

COMP 10 — Operating the Macintosh Computer 1.5 Units
Degree Applicable, CSU
(May be taken for option of letter grade or Pass/No Pass)
27 hours lecture
Basic skills and in-depth practice operating the Apple Macintosh computer. Includes introduction to the operating system, paint, draw, word-processing, database, spreadsheet, and multi-media applications.

COMP 11 — Internet Research for Business 2 Units
Degree Applicable, CSU
(May be taken for option of letter grade or Pass/No Pass)
27 hours lecture
27 hours lab
Advisory: COMP 10 or CISB 13
Practical hands-on instruction using the Internet for research in a business environment. Master Internet-specific research techniques, discover timesaving tips for locating and managing information, and use the entire Internet, newsgroups, FTP (File Transfer Protocol) and mailing lists.

COMP 12 — Office Computer Applications 4 Units
Degree Applicable, CSU, UC
(May be taken for option of letter grade or Pass/No Pass)
54 hours lecture
54 hours lab
In depth study of computer applications utilized in the office environment. Includes extensive hands-on instruction in word processing, spreadsheet, data management, and business graphics. Intended for the student who needs to upgrade or acquire office computer skills.
COMP 13 — Using Web Page Software 4 Units
Degree Applicable, CSU
(May be taken for option of letter grade or Pass/No Pass)
54 hours lecture
54 hours lab
Advisory: COMP 10 or COMP 12 or CSB 13 or CSB 15
Using industry leading Web page authoring software to plan, develop, and publish effective professional Web sites. Includes working with text and graphics; creating hyperlinks; creating tables and layers; collecting data with forms; adding multimedia objects; creating and applying cascading style sheets; creating interactions and behaviors; publishing a Web site.

COMP 18 — Data Entry 3 Units
Degree Applicable
54 hours lecture
Advisory: Ability to type 25 wpm with test verification at first class meeting
Data entry using a microcomputer. Includes intensive skill building on the ten-key pad and development of keyboarding skills for entering formatted and non-formatted text, both alphabetic and numeric, in a variety of business applications.

COMP 20 — Word for the Business Professional 4 Units
Degree Applicable
(May be taken for option of letter grade or Pass/No Pass)
54 hours lecture
54 hours lab
Advisory: COMP 10 or CSB 13 and ability to type 25 wpm with test verification at first class meeting
Extensive hands-on instruction using Microsoft Word and its editing, formatting, and language tools to create, revise and format various business and report documents. Also create flyers, newsletters, and other publication documents using advanced formatting techniques and tools.

COMP 28 — Office Management Skills 3 Units
Degree Applicable
54 hours lecture
Advisory: COMP 1 or COMP 1A or BUSO 1 or BUSO 1A and BUSO 5
Training and skill building in filing systems and procedures, proofreading, telephone techniques, faxing, emailing, and electronic calendaring of events, appointments and meetings.

COMP 50 — Desktop Presentations Using PowerPoint 4 Units
Degree Applicable, CSU
54 hours lecture
54 hours lab
Advisory: COMP 10 or COMP 12 or CSB 13 or CSB 15
Use PowerPoint to plan, design, and produce effective presentations. Includes creating charts, diagrams, and storyboards; developing appropriate text content; adding sound, animation, and movies.

COMP 60 — Business Publications Using Desktop Publishing Software 4 Units
Degree Applicable, CSU
(May be taken for option of letter grade or Pass/No Pass)
54 hours lecture
54 hours lab
Using desktop publishing software, integrate text and graphics to design, edit, and produce high-quality business publications.

COMP 68 — Transcription Techniques 3 Units
Degree Applicable
(May be taken for option of letter grade or Pass/No Pass)
54 hours lecture
Develops the language competencies and formatting knowledge required to produce acceptable business documents; emphasizes punctuation, number usage, proofreading, spelling and word division; and reinforces through a series of sentence applications, paragraphs and business documents.

COMP 150 — Basic PowerPoint 1 Unit
Degree Applicable
(May be taken for Pass/No Pass only)
18 hours lecture
Overview and basic instruction using one of the most popular presentation software packages. Recommended for all students who need to know how to create presentations. Not recommended for Office Technology majors.

COMP 18 — Advanced Image Design - 3D 3 Units
Degree Applicable
(May be taken for option of letter grade or Pass/No Pass)
54 hours lecture
54 hours lab
Advisory: GRAP 10
Advanced techniques of digital photo color management systems and workflow. System color architectures, monitors, printers, profilers, and other digital devices; spectrophotometer techniques; scripting Photoshop actions, using “digital raw” meta data to organize photo storage; advanced special effects and tools for 16-bit raw color and grayscale images.

COMP 14 — Digital Image Design with Illustrator 3 Units
Degree Applicable
(May be taken for option of letter grade or Pass/No Pass)
54 hours lecture
54 hours lab
Advisory: COMP 10 or equivalent computer experience
Basic digital image drawing techniques using Adobe Illustrator or Macromedia Freehand. Includes software tools, applying color, using layers, typography, measurement, and paper systems. Practice importing photo scans, creating layouts, layer animation, choosing fonts, special effects, and output in a digital workflow.

COMP 16 — Advanced Image Design - 3D Modeling Techniques 3 Units
Degree Applicable
(May be taken for option of letter grade or Pass/No Pass)
36 hours lecture
54 hours lab
Prerequisite: COMP 16
Advanced digital image drawing emphasizing creation of photorealistic 3D models and environments. Principles of perspective, coordinate space, photographic lighting, object animation, photo and video texture mapping, and common techniques for rendering still or animated QuickTime image movies for digital compositing and post-production.
**GRAP 20 — Applying Photos and Images in Multimedia**  
3 Units  
Degree Applicable  
(May be taken for option of letter grade or Pass/No Pass)  
36 hours lecture  
54 hours lab  
Advisory: GRAP 10  
Principles of digital storytelling, combining still photos, graphics images, type, video, and audio content output to digital CD or DVD media, video, or Web pages. Commonly used tools and techniques of Apple’s iPhoto, iMovie, iDVD, iLunes, GarageBand, and QuickTime Pro multimedia software, Mac OS X features, and other multimedia software and hardware.

**GRAP 24 — Work Experience in Computer Graphics**  
2 Units  
Degree Applicable  
(May be taken for option of letter grade or Pass/No Pass)  
150 hours lab  
Prerequisite: Compliance with Work Experience regulations as designated in the College Catalog  
Provides Computer Graphics students with actual-on-the-job experience in an approved work setting which is related to classroom instruction. A minimum of 75 paid or 60 non-paid clock hours per semester of supervised work is required for each unit of credit. It is recommended that the hours per week be equally distributed throughout the semester. Students who repeat this course will improve skills through further instruction and practice.

**GRAP 28 — Digital Portfolio**  
3 Units  
Degree Applicable  
(May be taken for option of letter grade or Pass/No Pass)  
36 hours lecture  
54 hours lab  
Prerequisite: GRAP 12 and GRAP 20  
Preparation of a personal computer graphics portfolio containing key samples of work for presentation or career evaluation. The portfolio displays the learner’s skills mastery, knowledge, and capacities for communicating, synthesis, and problem solving.

**GRAP 99 — Special Projects in Computer Graphics**  
2 Units  
Degree Applicable, CSU  
(May be taken for option of letter grade or Pass/No Pass)  
36 hours lecture  
In order to offer selected students recognition for their academic interests and ability and the opportunity to explore their disciplines to greater depth, the various departments from time to time offer Special Projects courses. The content of each course and the methods of study vary from semester to semester and depend on the particular project under consideration. Students must have an instructor’s authorization before enrolling in this course. Students repeating this course will make individual contracts of a more advanced nature with the instructor to insure that proficiencies are enhanced.

**COMPUTER INFORMATION SYSTEMS: AUXILIARY**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
<th>Description</th>
</tr>
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<tbody>
<tr>
<td>CIX 94</td>
<td>Laboratory Studies in Computer Information Systems</td>
<td>1 to 3 Units</td>
<td>(May be taken for option of letter grade or Pass/No Pass) 54 to 162 hours lab Prerequisite: Laboratory course in the same subject field and program specialization and depending on space availability This course provides extended laboratory experiences supplementary to those available in the regular program and allows the student to pursue more advanced and complex laboratory projects and experiments. Students who repeat this course will increase skill proficiencies in Computer Information Systems.</td>
</tr>
<tr>
<td>CIX 97</td>
<td>Work Experience in Computer Information Systems</td>
<td>1 Unit</td>
<td>(May be taken for option of letter grade or Pass/No Pass) 75 hours lab Prerequisite: Compliance with Work Experience regulations as designated in the College Catalog  Provides CIS students with actual-on-the-job experience in an approved work site which is 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. Work experience placement is not guaranteed but assistance is provided. Students who repeat this course will improve skills through further instruction and practice.</td>
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**COMPUTER INFORMATION SYSTEMS: DATABASE**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
<th>Description</th>
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<tbody>
<tr>
<td>CISD 11</td>
<td>Database Management - Microsoft Access</td>
<td>4 Units</td>
<td>Degree Applicable, CSU  54 hours lecture 54 hours lab Advisory: COMP 12 or CISB 11 and CISB 15 Design, creation, and management of relational databases using Microsoft Access or similar Database Management Software (DBMS). Basic database design, creation of tables, queries, forms, reports, data access pages, and macros. Creation of custom graphical user interface using Switchboard Manager and Visual Basic (VB) code. Extensive hands-on experience on a Windows-based PC.</td>
</tr>
<tr>
<td>CISD 14</td>
<td>Advanced Database Management - Microsoft Access</td>
<td>4 Units</td>
<td>Degree Applicable, CSU  54 hours lecture 54 hours lab Advanced Microsoft Access programming techniques using Visual Basic for Applications (VBA) language; event-driven programming; Access Object Model; Data Access Objects (DAO) model; ActiveX Data Objects (ADO) model; VBA structures, arrays, error handling, multi-user applications, transaction processing, client-server; security issues. Extensive hands-on experience on a Windows-based PC.</td>
</tr>
<tr>
<td>CISD 21</td>
<td>SQL Server</td>
<td>4 Units</td>
<td>Degree Applicable  54 hours lecture 54 hours lab Advisory: CISD 11 or CISB 15 Structured query language (SQL) and Transact-SQL for Microsoft SQL Server users. Topics include creating database objects, retrieving and updating data, writing scripts, developing stored procedures/functions, and creating cursors.</td>
</tr>
<tr>
<td>Course Descriptions</td>
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<tr>
<td><strong>CISD 31 — Database Management - Oracle</strong></td>
<td>4 Units</td>
<td></td>
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<tr>
<td>54 hours lecture</td>
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<td></td>
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<tr>
<td>54 hours lab</td>
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<tr>
<td>Advisory: CIS 11</td>
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<tr>
<td>Oracle database management system (DBMS) functions, concepts, and terms. PL/SQL is used to code, test, and implement stored procedures, functions, triggers, and packages. Relational database projects will be built using PL/SQL.</td>
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</tbody>
</table>

| **CISD 32 — Oracle Forms and Reports** | 4 Units |
| 54 hours lecture |
| 54 hours lab |
| Advisory: CISD 31 |
| Design, creation and implementation of interactive single forms with multiple canvases, multiple forms and reports using PL/SQL triggers, the Object Navigator, and Form and Report Builders. Business reports and interactive forms are created using single and multiple tables. |

| **CISD 40 — Database Design** | 3 Units |
| 54 hours lecture |
| Advisory: CISD 11 |
| Database design principles. Understanding database needs and functions, creating data models, entity-relationship (E-R) and Unified Modeling Language (UML) diagrams, using normalization rules and principles to create properly-designed databases, learning basic database administrator objectives and tasks, and understanding the role of data warehousing and data mining. |

### COMPUTER INFORMATION SYSTEMS: NETWORKING

| **CISN 11 — Telecommunications/Networking** | 4 Units |
| 54 hours lecture |
| 54 hours lab |
| Advisory: CIS 11 or CIS 15 |
| CNASM core. Prepare for Cisco CCNA 1st year certification. Covers fundamental concepts and design in telecommunications/networking including: network standards, TCP/IP, OSI, network protocols, transmission media, hardware architecture, local area network, wide area network, remote connectivity, Network operating system (Microsoft Windows, Novell NetWare, and UNIX), troubleshooting, maintaining/upgrading network, network security, vulnerability, and intrusion detection. |

| **CISN 14 — Advanced Telecommunications** | 4 Units |
| 54 hours lecture |
| 54 hours lab |
| Advisory: CIS 11, CISN 11, CISN 41 |
| Concepts of advanced telecommunication and network analysis. Topics including: review of networking and telecommunications protocols; advanced TCP/IP subnet and OSI Model applications; use of protocol analysis tool to capture data frame and troubleshoot advanced network problems through the decode analysis of the captured data frame; design and analysis of LAN, WAN, and Wireless networks in various environments and appraisal of network security, vulnerability and intrusion detection. |

| **CISN 21 — Windows Operating System** | 4 Units |
| 54 hours lecture |
| 54 hours lab |
| Advisory: CIS 11 or CIS 15 or COMP 12 |
| Employing a Windows operating system to manage disks, files and applications. Creating and editing documents with Wordpad and Paint applications, analyze and debug Windows operating environment problems, secure a Windows environment, conduct research on the Internet. |

| **CISN 24 — Window Server Network and Security Administration** | 4 Units |
| 54 hours lecture |
| 54 hours lab |
| Advisory: CIS 15 or CIS 11 or CISN 11 or CISN 21 |
| Active directory security and policy management, server/client installation, DHCP (Dynamic Host Configuration Protocol), DNS (Domain Name Service), file system security, logon script, network printing, web and terminal server, NAT, IPSec and secure VPN. |

### COMPUTER INFORMATION SYSTEMS: MANAGEMENT

| **CISM 11 — Systems Analysis and Design** | 3.5 Units |
| 54 hours lecture |
| 27 hours lab |
| Advisory: CISB 15 or COMP 12 and CISB 11 |
| Develops basic understanding of information systems, general system solutions and the discipline of systems analysis in relation to the information system life cycle. Develops skills in applying the tools, techniques, and concepts of systems analysis to information systems development. |

### COMPUTER INFORMATION SYSTEMS: PROGRAMMING

| **CISP 10 — Principles of Object-Oriented Design** | 2 Units |
| 27 hours lecture |
| 27 hours lab |
| Advisory: CIS 11 or CISP 21 or CISP 31 or CISP 41 |
| Object-oriented design, patterns, and use of UML in different programming languages that will enable students to build large packages and business applications. |
### Course Descriptions

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Types</th>
</tr>
</thead>
<tbody>
<tr>
<td>CISP 11</td>
<td>Programming in Visual Basic</td>
<td>4</td>
<td>Degree Applicable, CSU, UC</td>
</tr>
<tr>
<td>CISP 14</td>
<td>Advanced Visual Basic Programming</td>
<td>4</td>
<td>Degree Applicable, CSU, UC</td>
</tr>
<tr>
<td>CISP 21</td>
<td>Programming in Java</td>
<td>4</td>
<td>Degree Applicable, CSU, UC</td>
</tr>
<tr>
<td>CISP 24</td>
<td>Advanced Java Programming</td>
<td>4</td>
<td>Degree Applicable</td>
</tr>
<tr>
<td>CISP 31</td>
<td>Programming in C++</td>
<td>4</td>
<td>Degree Applicable, CSU, UC</td>
</tr>
<tr>
<td>CISP 34</td>
<td>Advanced C++ Programming</td>
<td>4</td>
<td>Degree Applicable, CSU, UC</td>
</tr>
<tr>
<td>CISP 41</td>
<td>Programming in C#</td>
<td>4</td>
<td>Degree Applicable (May be taken for option of letter grade or Pass/No Pass)</td>
</tr>
<tr>
<td>CISP 44</td>
<td>Advanced Programming in C#</td>
<td>4</td>
<td>Degree Applicable (May be taken for option of letter grade or Pass/No Pass)</td>
</tr>
<tr>
<td>CISP 51</td>
<td>Principles of Object-Oriented Design</td>
<td>2</td>
<td>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>
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<tr>
<td>CISS 15</td>
<td>Operating Systems Security</td>
<td>4</td>
<td>Degree Applicable</td>
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<tr>
<td>CISS 19</td>
<td>Operating Systems Security Professional</td>
<td>4</td>
<td>Degree Applicable</td>
</tr>
<tr>
<td>CISS 21</td>
<td>Operating Systems Security Professional</td>
<td>4</td>
<td>Degree Applicable</td>
</tr>
</tbody>
</table>

#### Computer Information Systems: Security

- **CISP 11 — Programming in Visual Basic**
  - 4 units
  - Degree Applicable, CSU, UC
  - 54 hours lecture
  - 54 hours lab
  - Advisory: CISP 11
  - Programming using Visual Basic. Planning and writing object-oriented applications using Windows Forms and Web Forms; user interface design classes, objects, properties, methods and events; control structures; lists and arrays; printing and Print Previews; accessing a database.

- **CISP 14 — Advanced Visual Basic Programming**
  - 4 units
  - Degree Applicable, CSU, UC
  - 54 hours lecture
  - 54 hours lab
  - Advisory: CISP 11
  - Advanced computer programming concepts using Visual Basic.NET as the programming language. Designing, coding, testing, and implementing object-oriented multiple tier programs; program design using Unified Modeling Language; using data adapters, object linking and embedding (OLE) objects and dynamic link libraries (DLLs); incorporating XML, Web forms, and Web services; creating and updating sequential and random files; validating input data; trapping errors; designing, displaying, searching, and updating database tables; creating record sets using SOL and database reports using Crystal Reports; producing business graphics; using distributing applications; creating components, collections, and help files.

- **CISP 21 — Programming in Java**
  - 4 units
  - Degree Applicable, CSU, UC
  - 54 hours lecture
  - 54 hours lab
  - Advisory: CISP 11 or CISP 15
  - Programming using Java as the programming language. Design and develop object-oriented programs and Web-based applets; documentation and debugging techniques; user-interface, objects, properties, methods, and events; elementary control structures, lists, arrays, streams and serialization. Provides students with hands-on experience.

- **CISP 24 — Advanced Java Programming**
  - 4 units
  - Degree Applicable
  - 54 hours lecture
  - 54 hours lab
  - Advisory: CISP 21
  - Advanced object-oriented programming concepts and techniques in Java. Course is designed to teach serialization, multithreading, advanced Swing components, networking, server-side technology (servlets, RMI), JDBC, Java Beans, Security (PKI).

- **CISP 31 — Programming in C++**
  - 4 units
  - Degree Applicable, CSU, UC
  - 54 hours lecture
  - 54 hours lab
  - Advisory: CISP 11 or CISP 21
  - Object-oriented programming using C++ as the programming language. Object oriented design, documentation, and debugging techniques. Elementary control structures, classes, overload operators and functions, single and multiple inheritance.

- **CISP 34 — Advanced C++ Programming**
  - 4 units
  - Degree Applicable, CSU, UC
  - 54 hours lecture
  - 54 hours lab
  - Advisory: CISP 31

- **CISP 41 — Programming in C#**
  - 4 units
  - Degree Applicable (May be taken for option of letter grade or Pass/No Pass)
  - 54 hours lecture
  - 54 hours lab
  - Advisory: CISP 11 or CISP 15
  - Plan, develop and debug C# applications using Windows Forms and Web Forms. Course covers loops, if statements, switch blocks, database connections, multiple forms, object-oriented programming concepts. Course taught in hands-on environment and requires projects implementing each concept.

- **CISP 44 — Advanced Programming in C#**
  - 4 units
  - Degree Applicable (May be taken for option of letter grade or Pass/No Pass)
  - 54 hours lecture
  - 54 hours lab
  - Prerequisite: CISP 41 or industry experience in C#
  - Advanced programming concepts using C#. Designing, coding, testing and implementing object-oriented multi-tier applications; displaying, searching and updating SQL/Client databases using Data Readers and Data Adapters with both Windows Forms and Web Forms; creating user controls; Web Services, and container classes; creating HTML help files, deploying applications, and developing mobile applications.

- **CISP 51 — Principles of Object-Oriented Design**
  - 2 units
  - Degree Applicable
  - 27 hours lecture
  - 27 hours lab
  - Advisory: CISP 11 or CISP 21 or CISP 31
  - Provides instruction in object-oriented design and patterns, vital concepts for object-oriented programming language. Includes object-oriented design, patterns and UML within programming that will enable students to build large packages and business applications.

- **CISS 11 — Practical Computer Security**
  - 2 units
  - Degree Applicable
  - 27 hours lecture
  - 27 hours lab
  - Advisory: CISB 11
  - Introductory course in computer security. Provides awareness for all computer users to protect user accounts and computer systems from attacks. Hands-on projects illustrate security software and hardware configuration.

- **CISS 13 — Principles of Information Systems Security**
  - 4 units
  - Degree Applicable
  - 54 hours lecture
  - 54 hours lab
  - Advisory: CISB 11
  - Introductory course in information systems security covering the ten domains needed for the Certified Information Systems Security Professional (CISSP).

- **CISS 15 — Operating Systems Security**
  - 4 units
  - Degree Applicable
  - 54 hours lecture
  - 54 hours lab
  - Advisory: CISP 11, CISP 21
  - Advanced aspects of operating systems security: from how attackers operate to how viruses strike. Covers strengthening operating systems and repelling attacks. Fundamental knowledge of a full range of security concepts and techniques and application to different operating systems (Windows, Unix etc.).
Course Descriptions

CISS 21 — Network Vulnerabilities and Countermeasures 4 Units
54 hours lecture
54 hours lab
Concepts of network vulnerabilities from a hacker's perspective. Addresses the latest cutting edge attacks and common attacks still prevalent though hands-on lab assignments; explores legal issues associated with computer network attacks; provides students knowledge to design, build and operate network systems to prevent, detect, and respond to attacks. Communication protocols, mediums, security classes, well-known ports and services, discovery and scanning techniques, port, socket and service vulnerability penetrations are some topics addressed.

CISS 23 — Network Analysis, Intrusion Detection/Prevention Systems 4 Units
54 hours lecture
54 hours lab
CNASM (Computer Network Administration and Security Management) AS degree core course. Cover IDS/IPPS (Intrusion detection/prevention systems) and network protocol and analyzing tools. Discuss qualities that go into a sound and appropriate IDS/IPPS in different scenarios. Hands-on practice of the tools such as Snort, Cisco IDS/IPPS sensor, Sniffer, Ethereal, WildPackets, TCPDump, to detect network attack and troubleshoot network problems.

CISS 25 — Network Security and Firewalls 4 Units
54 hours lecture
54 hours lab
Concepts of design and implementation of a secured network. Addresses an in-depth coverage of network security design, implementation and construction of firewall and VPN in various environments and platforms, implementing security with Cisco routers, firewall log analysis, IPSec, SSH (Secure Shell), and secure perimeter design. Lab assignments will provide hands-on practice in installing.

COMPUTER INFORMATION SYSTEMS: WEB APPLICATIONS

CISS 21 — Secure Web Programming with ASP.NET 4 Units
54 hours lecture
54 hours lab
Advisory: CISW 15 or CISS 10
Acquire secure programming skills for designing user interfaces, processing user input, and accessing Web servers and databases. Use secure coding techniques with Web programming, scripting and markup languages like HTML, Dynamic HTML, CSS, XML, JavaScript, AJAX, ASF.NET, and VB.NET.

CISS 24 — Secure Server Side Web Programming 4 Units
54 hours lecture
54 hours lab
Advisory: CISSW 21
Advanced Web programming such as creating Web user interfaces like interactive CGI (Common Gateway Interface), programming databases, managing files, extracting information, report formatting, and accessing Web servers by using a Web scripting or programming language like PERL.

CISS 31 — Secure Web Servers 4 Units
54 hours lecture
54 hours lab
Advisory: CISS 21 or CISSW 21
Plan, install and manage secure Web servers like Apache or IIS using server side programming language like PHP to access, manage and secure databases. Course topics include Web server security using firewalls, authentication, and SSL, database installation and configuration, running and securing practical e-commerce sites.

CISS 41 — XML Secure Programming 3 Units
54 hours lecture
Advisory: CISS 21
Principles, components and benefits of the Extensible Markup Language (XML), including advanced concepts of XPointers, XLink, and XSLT. Apply XML secure programming using DOM and SAX and standards such as Canonicalization, Signatures and Encryption.

CISS 49 — Service Oriented Architecture Concepts and Practice 3 Units
54 hours lecture
Advisory: CISW 41
Prerequisites: CISW 41
Concepts and design principles of Service Oriented Architecture (SOA) and best practices on how to integrate SOA; XML technologies like DTD, XSD, XLink, XQuery and XPath; and Web Services technologies like WSDL, SOAP, and UDDI. Best practices on integrating XML and Web Services into applications and databases and enterprise level systems.

COMPUTER SCIENCE

CSCI 110 — Fundamentals of Computer Science 3.5 Units
54 hours lecture
27 hours lab
Prerequisite: MATH 71 or MATH 71B or equivalent
Advisory: Eligibility for ENGL 1A
Basic concepts of computer hardware and software. General computer organization and information representation. Binary and hexadecimal number systems. Algorithm design and problem-solving techniques. Introduction to programming using a high level language (C, C++ or Java.)

CSCI 140 — C++ Language and Object Development 4 Units
(CAN CSCI18) Degree Applicable, CSU, UC
54 hours lecture
54 hours lab
Prerequisite: CSCI 110 or equivalent programming experience
For computer science, mathematics, engineering and other science students. Introduction to C++ programming and object-oriented paradigm. Control structures, functions, arrays, pointers and strings, classes and data abstraction, C++ object programming, operator overloading, inheritance, virtual functions and polymorphism, stream input and output, templates, exception handling, file processing. Introduction to data structures in C++, string processing and recursion.

CSCI 145 — Java Language and Object Oriented Programming 4 Units
Degree Applicable, CSU, UC
54 hours lecture
54 hours lab
Prerequisite: CSCI 110
Introduction to Java language and object oriented programming with Java as well as general concepts and techniques of computer programming. Topics include: Java expressions, flow control, methods and program structure, Java classes, overloading, object references, inheritance, Java library packages, exceptions, file I/O, applets, GUI, and event handling. A course for computer science, engineering, mathematics, and other science students.

CSCI 150 — Assembly Language/Machine Architecture 3 Units
(CAN CSCI10) Degree Applicable, CSU, UC
54 hours lecture
Prerequisite: CSCI 110
Corequisite: CSCI 150L
Organization and operation of real computer systems at the assembly language level using the Intel 80x86 family of processors; mapping statements and constructs in a high-level language onto sequences of machine instructions; internal representations of simple data types and structures; numerical computation, noting various data representation errors and potential procedural errors; investigation of basic principles of operating systems; and programming language translation process.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Department</th>
<th>Prerequisites</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSCI 150L</td>
<td>Assembly Language Laboratory</td>
<td>1</td>
<td>Computer Science</td>
<td>Degree Applicable, CSU, UC</td>
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<td>(CAN CSCI10)</td>
<td>(May be taken for Pass/No Pass only)</td>
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<tr>
<td>54 hours lab</td>
<td>CSCI 150L</td>
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<tr>
<td>Advisory: CSCI 140</td>
<td>Language experience programming general and</td>
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<td>scientific algorithms and data structures in C++</td>
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<td>or Java strongly</td>
<td>recommended</td>
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<td></td>
<td>Complements the lecture material in CSCI 150.</td>
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<td></td>
<td>Development/debugging of assembly language programs.</td>
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<tr>
<td>CSCI 170</td>
<td>Introduction to Unix Operating System</td>
<td>3.5</td>
<td>Computer Science</td>
<td>Degree Applicable</td>
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<td></td>
<td>54 hours lecture</td>
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<td></td>
<td>27 hours lab</td>
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<td>Prerequisite: Completion of CSCI 110</td>
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<td></td>
<td>Introduction to the UNIX operating system, system</td>
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<td></td>
<td>administration and networking. Topics include</td>
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<td></td>
<td>process synchronization and communication</td>
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<td></td>
<td>mechanisms, process management, scheduling and</td>
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<td></td>
<td>protection, memory organization and management,</td>
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<td>virtual memory, I/O devices management, file</td>
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<td>systems, networking, system administration for</td>
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<td>UNIX.</td>
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<tr>
<td>CSCI 190</td>
<td>Discrete Mathematics Applied to Computer Science</td>
<td>4</td>
<td>Computer Science</td>
<td>Degree Applicable, CSU, UC</td>
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<td></td>
<td>72 hours lecture</td>
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<td>Prerequisite: MATH 71 or equivalent</td>
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<tr>
<td></td>
<td>Provides students with the mathematical background</td>
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<td></td>
<td>necessary in Computer Science: set theory, logic,</td>
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<td></td>
<td>modular arithmetic, combinatorics, finite</td>
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<td></td>
<td>probability and graphs. Topics include</td>
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<td></td>
<td>propositional and predicate calculus, recursion,</td>
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<td>binary search trees and counting techniques.</td>
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<tr>
<td>CSCI 210</td>
<td>Applied Logic for Computers</td>
<td>3</td>
<td>Computer Science</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: CSCI 110</td>
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<td>Provides concepts of digital systems, introduction</td>
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<td>to Boolean algebra, truth tables, Karnaugh maps,</td>
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<td>combinational elements and networks, state</td>
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<td>diagrams, state tables, sequential elements and</td>
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<td>networks.</td>
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<tr>
<td>CSCI 220</td>
<td>Data Structures I</td>
<td>3</td>
<td>Computer Science</td>
<td>Degree Applicable, CSU, UC</td>
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<td>(CAN CSCI12)</td>
<td>54 hours lecture</td>
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<td></td>
<td>Prerequisite: CSCI 140 or CSCI 145</td>
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<td>CSCI 220L</td>
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<td></td>
<td>Abstract data types and running time analysis</td>
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<td>tools. Linear data structures including sets,</td>
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<td>stacks, queues, and linked lists. Trees, binary</td>
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<td>search trees, heaps, and priority queues. Many</td>
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<td>procedures are discussed using an algorithmic</td>
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<td>language and selected problems are programmed in</td>
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<td>a higher level language.</td>
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</tbody>
</table>

**COURSE DESCRIPTIONS**

- **CSCI 220** — **Data Structures I Laboratory**
  - 1 Unit
  - Degree Applicable, CSU, UC
  - 54 hours lab
  - Prerequisite: CSCI 220
  - An independent study program designed to complement the lecture material presented in CSCI 220, Data Structures. Hands-on computer work will include problem solving in linear data structures, strings, and trees.

- **CSCI 230** — **Data Structures II**
  - 3 Units
  - Degree Applicable, CSU, UC
  - 54 hours lecture
  - Prerequisite: CSCI 220
  - CSCI 230L
  - Basic searching/sorting algorithms, hashing, graphs, memory/disk management, B-trees, advanced tree structures and analysis.

- **CSCI 230L** — **Data Structures II Laboratory**
  - 1 Unit
  - Degree Applicable, CSU, UC
  - 54 hours lab
  - Prerequisite: 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 searching, sorting, and graphs.

**COMPUTER AND NETWORKING TECH**

- **CNET 50** — **PC Servicing**
  - 4 Units
  - Degree Applicable
  - 54 hours lecture
  - 54 hours lab
  - Advisory: CNET 54 taken prior
  - Advanced microcomputer servicing. Includes: isolating, identifying, and repairing specific problems in the computer environment at the hardware level. Prepares students for the A+ Certification Exam.

- **CNET 54** — **PC Troubleshooting**
  - 4 Units
  - Degree Applicable
  - 54 hours lecture
  - 54 hours lab
  - Advisory: CNET 50 taken prior
  - Standards, terminology, design, implementation and troubleshooting techniques as they relate to both Local and Wide Area Networks. Emphasis on hardware and software components, network architecture and data transmission methods. Of special interest to computer and network technicians and those seeking certification in A+, Network+, or other MSCE certifications.

- **CNET 56** — **Computer Networks**
  - 4 Units
  - Degree Applicable
  - 54 hours lecture
  - 54 hours lab
  - Advisory: CNET 54 taken prior
  - Prepares the student and qualified computer technician for the A+ certification examination. All aspects of the Core and OS test modules will be stressed through both lecture review and test simulation software.

- **CNET 60** — **A+ Certification Preparation**
  - 3 Units
  - Degree Applicable
  - 54 hours lecture
  - Advisory: CNET 54
  - Prepares the student and qualified computer technician for the A+ certification examination. All aspects of the Core and OS test modules will be stressed through both lecture review and test simulation software.

- **CNET 62** — **Network+ Certification Preparation**
  - 3 Units
  - Degree Applicable
  - 54 hours lecture
  - Advisory: CNET 56
  - Prepares the student and/or A+ certified technician for the Network+ Certification Examination. Individuals preparing for a job in the computer networking industry or who wish to become Network+ certified will find this course invaluable.

- **CNET 64** — **Server + Certification Preparation**
  - 3 Units
  - Degree Applicable
  - 36 hours lecture
  - 54 hours lab
  - Advisory: CNET 56 taken prior
  - Prepares the computer/network service technician for the CompTIA Server+ certification examination.
## COURSE DESCRIPTIONS

### CORRECTIONAL SCIENCES

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Degree Applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>CORS 10</td>
<td>Introduction to Correctional Sciences</td>
<td>3</td>
<td>Degree Applicable</td>
</tr>
<tr>
<td>CORS 20</td>
<td>Correctional Law</td>
<td>3</td>
<td>Degree Applicable</td>
</tr>
<tr>
<td>CORS 25</td>
<td>Probation and Parole</td>
<td>3</td>
<td>Degree Applicable</td>
</tr>
<tr>
<td>CORS 30</td>
<td>Ethnic Relations in Corrections</td>
<td>3</td>
<td>Degree Applicable</td>
</tr>
<tr>
<td>CORS 35</td>
<td>Interviewing and Counseling in Corrections</td>
<td>3</td>
<td>Degree Applicable</td>
</tr>
<tr>
<td>CORS 40</td>
<td>Crime and Delinquency</td>
<td>3</td>
<td>Degree Applicable</td>
</tr>
<tr>
<td>CORS 45</td>
<td>The Violent Offender</td>
<td>3</td>
<td>Degree Applicable</td>
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</tbody>
</table>

### COURSING

<table>
<thead>
<tr>
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<th>Units</th>
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<tbody>
<tr>
<td>COUN 1</td>
<td>Introduction to College</td>
<td>1</td>
<td>Degree Applicable</td>
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<tr>
<td>COUN 2</td>
<td>College Success Strategies</td>
<td>3</td>
<td>Degree Applicable, CSU</td>
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<td>COUN 5</td>
<td>Career/Life Planning</td>
<td>3</td>
<td>Degree Applicable</td>
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<td>COUN 45</td>
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### DANCE

<table>
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<th>Units</th>
<th>Degree Applicable</th>
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<tbody>
<tr>
<td>DNCE 1</td>
<td>Ballet Fundamentals</td>
<td>.5 to 2</td>
<td>Degree Applicable, CSU, UC</td>
</tr>
</tbody>
</table>
DNCE 11A — Social Dance Forms I .5 to 1 Unit
(May be taken four times for credit)
(May be taken for option of letter grade or Pass/No Pass)
36 to 54 hours activity
Designed to teach basic social dance techniques. Focus on fundamentals of music, dance positions, dance formations and choreography to be used in the study of, but not limited to Swing, Salsa, Foxtrot, Waltz, Folk, Polka, Cha Cha and Tango. Students who repeat this course will improve skills through further instruction and practice.

DNCE 11B — Social Dance Forms II .5 to 1 Unit
(May be taken four times for credit)
(May be taken for option of letter grade or Pass/No Pass)
36 to 54 hours activity
Advanced social dance technique. Focus on improving fundamentals of rhythm, dance positions, dance formations and introduction of advanced techniques to be used in the study of, but not limited to Swing, Salsa, Foxtrot, Waltz, Folk, Polka, Cha Cha and Tango. Students who repeat this course will improve proficiency through continued instruction and practice.

DNCE 12A — Modern I .5 to 1 Unit
(May be taken four times for credit)
(May be taken for option of letter grade or Pass/No Pass)
36 to 54 hours activity
Basic vocabulary, technique, and movement combinations for Modern dance. Students who repeat this course will improve skills through further instruction and practice.

DNCE 12B — Modern II .5 to 1 Unit
(May be taken four times for credit)
(May be taken for option of letter grade or Pass/No Pass)
36 to 54 hours activity
Intermediate technique, vocabulary and movement combinations of modern dance. Students who repeat this course will improve proficiency through continued instruction and practice.

DNCE 13 — Modern Performance .5 to 2 Units
(May be taken four times for credit)
(May be taken for option of letter grade or Pass/No Pass)
36 to 108 hours activity
Introduces the experienced modern dance student to an overview of modern dance styles and choreography elements, enabling them to choreograph and perform. Students who repeat this course will improve proficiency through continued instruction and practice.

DNCE 14A — Jazz I .5 to 1 Unit
(May be taken four times for credit)
(May be taken for option of letter grade or Pass/No Pass)
36 to 54 hours activity
Basic vocabulary, technique, movement combinations and routines for jazz dance. Students who repeat this course will improve skills through further instruction and practice.

DNCE 14B — Jazz II .5 to 1 Unit
(May be taken four times for credit)
(May be taken for option of letter grade or Pass/No Pass)
36 to 54 hours activity
Intermediate technique, movement combinations and routines for jazz dance. Students who repeat this course will improve skills through further instruction and practice.

DNCE 15 — Jazz Performance .5 to 1 Unit
(May be taken four times for credit)
(May be taken for option of letter grade or Pass/No Pass)
36 to 54 hours activity
Introduces the experienced dancer to the performance aspect of jazz dance by providing advanced techniques leading to the performance of compositions. Students who repeat this course will improve skills through further instruction and practice.

DNCE 16 — Tap I .5 to 2 Units
(May be taken four times for credit)
(May be taken for option of letter grade or Pass/No Pass)
36 to 108 hours activity
Fundamentals of jazz dance and an exploration of composition in jazz form. Students who repeat this course will improve skills through further instruction and practice.

DNCE 17 — Tap II .5 to 1 Unit
(May be taken four times for credit)
(May be taken for option of letter grade or Pass/No Pass)
36 to 54 hours activity
Intermediate technique, rhythms and routines for tap dance. Students who repeat this course will improve skills through further instruction and practice.

DNCE 18A — Tap I .5 to 1 Unit
(May be taken four times for credit)
(May be taken for option of letter grade or Pass/No Pass)
36 to 54 hours activity
Introduces the experienced tap dancer to an overview of tap dance elements, enabling them to choreograph and perform. Students who repeat this course will improve proficiency through continued instruction and practice.

DNCE 18B — Tap II .5 to 1 Unit
(May be taken four times for credit)
(May be taken for option of letter grade or Pass/No Pass)
36 to 54 hours activity
Intermediate technique, rhythms and routines for tap dance. Students who repeat this course will improve skills through further instruction and practice.
### DNCE 19 — Tap Performance .5 to 1 Unit
Degree Applicable, CSU, UC
(May be taken four times for credit)
(May be taken for option of letter grade or Pass/No Pass)
36 to 54 hours activity
Introduces the experienced dancer to the performance aspects of tap by providing advanced techniques leading to the performance of compositions. Students who repeat this course will improve skills through further instruction and practice.

### DNCE 22 — Dance Rehearsal .5 to 1 Unit
Degree Applicable, CSU, UC
(May be taken four times for credit)
(May be taken for option of letter grade or Pass/No Pass)
36 to 54 hours activity
Designed for the experienced dancer to work in a rehearsal environment and to be a participant in the beginning elements of concert production. Students who repeat this course will improve skills through further instruction and practice.

### DNCE 24 — Dance Production 1 to 2 Units
Degree Applicable, CSU, UC
(May be taken four times for credit)
(May be taken for option of letter grade or Pass/No Pass)
54 to 108 hours activity
Designed for the experienced dancer to apply previously learned choreographic skill, to conduct stage rehearsals and learn costuming techniques. Students who repeat this course will improve skills through further instruction and practice.

### DNCE 28 — Theater Dance I .5 to 1 Unit
Degree Applicable, CSU, UC
(May be taken four times for credit)
(May be taken for option of letter grade or Pass/No Pass)
36 to 54 hours activity
Provides an opportunity to learn simple dance excerpts from various theater musicals and/or movies. Students who repeat this course will improve skills through further instruction and practice.

### DNCE 30 — Contemporary Dance .5 to 1 Unit
Degree Applicable, CSU, UC
(May be taken four times for credit)
(May be taken for option of letter grade or Pass/No Pass)
36 to 54 hours activity
Provides the beginning to advanced dancer the opportunity to experience different techniques of leading contemporary dancers and choreographers. Students who repeat this course will improve skills through further instruction and practice.

### DNCE 31 — Classical Dance .5 to 2 Units
Degree Applicable, CSU, UC
(May be taken four times for credit)
(May be taken for option of letter grade or Pass/No Pass)
36 to 108 hours activity
Provides the proficient ballet student the opportunity to experience the different schools of ballet technique. Students who repeat this course will improve skills through further instruction and practice.

### DNCE 32 — Commercial Dance .5 to 1 Unit
Degree Applicable, CSU, UC
(May be taken four times for credit)
(May be taken for option of letter grade or Pass/No Pass)
36 to 54 hours activity
Provides the intermediate to advanced jazz dancer the opportunity to experience the different techniques of leading commercial dancers, teachers and choreographers. Students who repeat this course will improve skills through further instruction and practice.

### DNCE 33 — Improvisation .5 to 1 Unit
Degree Applicable, CSU, UC
(May be taken four times for credit)
(May be taken for option of letter grade or Pass/No Pass)
36 to 54 hours activity
Provides the opportunity to experience the creative process of improvisation in dance and choreography. For all levels of Modern Dance. Students who repeat this course will improve proficiency through continued instruction and practice.

### DNCE 34 — Dance Directives .5 to 1 Unit
Degree Applicable, CSU, UC
(May be taken four times for credit)
(May be taken for option of letter grade or Pass/No Pass)
36 to 54 hours activity
Provides the intermediate or advanced student the practical experience to assist an instructor in the creation and instruction of a dance class. Students who repeat this course will improve skills through further instruction and practice.

### DNCE 35 — Repertory 2 Units
Degree Applicable, CSU, UC
(May be taken four times for credit)
(May be taken for option of letter grade or Pass/No Pass)
36 to 108 hours activity
Provides the opportunity for the advanced dancer to learn choreography and to perform repertory pieces at workshops and special events. Students who repeat this course will improve skills through further instruction and practice.

### DNCE 39A — Alignment and Correctives I .5 to 1 Unit
Degree Applicable, CSU, UC
(May be taken four times for credit)
(May be taken for option of letter grade or Pass/No Pass)
36 to 54 hours activity
Based on exercises and concepts developed by Joseph Pilates. Includes basic mat work, floor, special conditioning exercises and body awareness resulting in improved alignment, strength, flexibility, control, coordination and breathing. The mat work leads to apparatus work (on the professional reformer) emphasizing stretch, strength and trunk stability and alignment. Students who repeat this course will improve skills through further instruction and practice.

### DNCE 39B — Alignment and Correctives II .5 to 1 Unit
Degree Applicable, CSU, UC
(May be taken four times for credit)
(May be taken for option of letter grade or Pass/No Pass)
54 to 108 hours activity
Advisory: DNCE 39A
Based on exercises and concepts developed by Joseph Pilates. Includes intermediate and advanced mat work. Focus will be primarily on apparatus work (on the professional reformer) developing in improved body alignment, strength, flexibility and control. Students who repeat this course will improve skills through further instruction and practice.

### DNCE 40 — Conditioning Through Dance .5 to 1 Unit
Degree Applicable, CSU, UC
(May be taken four times for credit)
(May be taken for option of letter grade or Pass/No Pass)
36 to 54 hours activity
Improves fitness through the coordination of dance exercises. Focuses on strength, flexibility and range of motion. Designed for the non-dancer. However, balance and coordination will benefit dancer and non-dancer alike. Students who repeat this course will improve skills through further instruction and practice.
### DANCE: THEORY

**DN-T 18 — Introduction to Dance**  
3 Units  
Degree Applicable, CSU, UC  
54 hours lecture  
Advisory: Eligibility for ENGL 68  
A survey of the profession of dance and its various art forms through lecture, discussion, demonstration, and participation. Includes multicultural dance interpretations.

**DN-T 20 — History and Appreciation of Dance**  
3 Units  
Degree Applicable, CSU, UC  
54 hours lecture  
Advisory: Eligibility for ENGL 68  
Survey of dance in western civilization. History of dance in chronological sequence emphasizing the cultural background and historical development of various forms and styles of dance to include discussion of the influence of dance on other art forms.

### DISABLED STUDENTS

**DSPS 10 — College Transition Strategies for Students with Disabilities**  
3 Units  
Not Degree Applicable  
(May be taken for option of letter grade or Pass/No Pass)  
54 hours lecture  
Advisory: Eligibility for READ 80  
Introduces students with disabilities to college, including campus resources and college success factors. Explores strategies for successful transition to college. Topics include self-advocacy, college resources, self-management, educational accommodations, effective learning methods, and goal setting.

**DSPS 15 — Personalized Career Exploration for Students with Disabilities**  
1 Unit  
Not Degree Applicable  
(May be taken four times for credit)  
(May be taken for Pass/No Pass only)  
18 hours lecture  
Self-evaluation including interests, experiences, personality, values, and disability-related limitations as they relate to educational and career decisions. Identification of skills and resources, including those that relate to disability factors. Students who repeat this course will improve skills through further instruction and practice.

**DSPS 16 — Educational and Career Options for Students with Disabilities**  
1 Unit  
Not Degree Applicable  
(May be taken four times for credit)  
(May be taken for Pass/No Pass only)  
18 hours lecture  
Students will identify educational and career options. Emphasis on strategies that facilitate disability-sensitive career and educational planning. Barriers to employment and other disability issues are addressed. Students who repeat this course will improve skills through further instruction and practice.

**DSPS 20 — Improving Spelling and Reading of Words**  
3 Units  
Not Degree Applicable  
(May be taken four times for credit)  
(May be taken for Pass/No Pass only)  
54 hours lecture  
Improve reading and spelling skills for multi-syllabic words. Includes sounding letters, oral movements, and common "rules" for reading and spelling words. Students who repeat this course will improve skills through further instruction and practice.

**DSPS 30 — Academic Success Strategies for Students with Disabilities**  
1 Unit  
Not Degree Applicable  
(May be taken four times for credit)  
(May be taken for Pass/No Pass only)  
54 hours lecture  
Advisory: Concurrent enrollment in ENGL 67 or above, or MATH 50 to MATH 130  
Strategies for academic success in relationship to disabilities. Primary emphasis will be on the effects of and strategies for auditory processing, language expression, memory, fluid reasoning and performance speed. Secondary emphasis will be on strategies to improve subject-specific performance. Students who repeat this course will improve skills through further instruction and practice.

**DSPS 31 — Memory Strategies for Students with Disabilities**  
3 Units  
Not Degree Applicable  
(May be taken four times for credit)  
(May be taken for Pass/No Pass only)  
54 hours lecture  
Advisory: Eligibility for READ 80. Student should have at least one other academic class for application of strategies. Principles of the memory process as it applies to academic coursework. Focus on understanding the memory process, improving specific memory components, identifying key concepts to memorize, and the independent application of memory strategies to students’ other academic courses. Students who repeat this course will improve skills through further instruction and practice.

### COURSE DESCRIPTIONS

**EDUC 10 — Introduction to Education**  
3 Units  
Degree Applicable, CSU, UC  
54 hours lecture  
Introduction to the field of education for students interested in teaching at the elementary or secondary level. Principles and issues are explored including history, philosophy, politics of education, needs of learners, and educational specialization. Course includes guidance in the selection of a future area of specialization. K-12 classroom observations required.

**EDUC 16 — Aspects and Issues in Teaching Service Learning**  
3 Units  
Degree Applicable, CSU, UC  
54 hours lecture  
Advisory: Eligibility for ENGL 68  
Survey of the teaching profession, providing students opportunities to explore aspects of the career, including teaching and learning styles, state content standards and testing, recent California and national legislation, social issues, school funding and teacher rights and responsibilities.

**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.
### Course Descriptions

**ELEC 11 — Technical Applications in Microcomputers** 3 Units

Degree Applicable, CSU

36 hours lecture
54 hours lab

Use of the personal computer (PC) in electronics for technically related applications. Includes word processing, spreadsheets, database, computer presentation methods, e-mail, and job searches.

**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 (DC)** 4 Units

Degree Applicable, CSU

54 hours lecture
54 hours lab

Advisory: Eligibility for Math 51; ELEC 61 taken concurrently

Direct Current (DC) electrical circuits and their applications. Covers DC sources, analysis, test equipment, measurements, and troubleshooting of resistive devices and other basic components. Includes Ohm’s Law, Kirchhoff’s law, and network theorems. (Students seeking a survey course in electronics should take ELEC 10, Introduction to Mechatronics, rather than ELEC 50A or 50B.)

**ELEC 50B — Electronic Circuits (AC)** 4 Units

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 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 51 — Electronic Devices** 4 Units

Degree Applicable, CSU

54 hours lecture
54 hours lab

Advisory: ELEC 50B taken prior

Solid-state devices and circuits, including BJTs, FETs, transistors, diodes, nonlinear elements, operational amplifiers, feedback amplifiers, wave shaping, filters, and other applications. Emphasizes the soft-ware/hardware architecture for the typical microprocessor environment. The software instruction set and the hardware interface circuit design are covered for the microprocessor. Fundamentals and terms are covered for the personal computer (PC).
ELEC 76 — Radio Telephone Communications 3 Units  Not Degree Applicable
54 hours lecture
Prepares qualified electronic technicians for the FCC and/or NARTE commercial licenses for technicians and engineers in the communications field.

ELEC 81 — Laboratory Studies in Electronics Technology 1 to 2 Units  Degree Applicable
(May be taken two times for credit)
54 to 108 hours lab
Advisory: ELEC 50B taken prior or concurrently
Extended laboratory experience supplementary to that available in the regular program. Allows the student to pursue more advanced and complex laboratory projects and experiments.

ELEC 91 — Work Experience in Electronics 1 to 4 Units  Degree Applicable
(May be taken four times for credit)
(May be taken for Pass/No Pass only)
75 to 300 hours lab
Prerequisite: Compliance with Work Experience regulations as designated in the College Catalog
Advisory: ELEC 56
Provides actual on-the-job experience in Electronics at an approved work site which is related to classroom instruction. A minimum of five hours per week of supervised work (60 non-paid clock hours or 75 paid clock hours per semester) is required for each one unit of credit.
Students who repeat this course will improve skills through further instruction and practice.

ELECTRONICS SYSTEMS TECHNOLOGY

EST 50 — Electrical Fundamentals for Cable Installations 4 Units  Degree Applicable
54 hours lecture
54 hours lab
Electrical fundamentals for cable and wire installations, and other low voltage systems. Includes DC/AC, solid-state devices, digital and microprocessor devices and their application to cable installations. Prepares students for the California State Contractors C-7 low voltage systems license.

EST 52 — Fabrication Techniques for Cable Installation 4 Units  Degree Applicable
54 hours lecture
54 hours lab
Fabrication techniques used in the installation of home theater, computer networks, home automation, and other low voltage system applications. Emphasis on hand and power tools, construction methods and materials as they apply to cable and wire installations. Prepares students for the California State Contractors C-7 low voltage systems license.

EST 54 — Cabling and Wiring Standards 4 Units  Degree Applicable
54 hours lecture
54 hours lab
Advisory: EST 50, EST 52
Cable and wire standards of video, voice, and data wiring for home theater, computer networks, home automation, telecommunications, and other low voltage system installations. Emphasis on copper wire, coax, fiber optic, and structured cables. Prepares students for the California State Contractors C-7 low voltage systems license.

EST 56 — Home Electronic Systems 4 Units  Degree Applicable
54 hours lecture
54 hours lab
Advisory: EST 54
Home theater, home integration, and other home management systems. Emphasis on home theater, home management PLCs, security hardware and programming, and the installation and servicing of such systems. Prepares students for the California State Contractors C-7 low voltage systems license.

EST 62 — Electronic Troubleshooting-I 4 Units  Degree Applicable
54 hours lecture
54 hours lab
Advisory: EST 56
Troubleshooting basic electronic circuits and systems to component level. Circuits include: power supplies, amplifiers, audio circuits, home theater audio (Dolby 5.1), and video circuits (analog TV).

EST 64 — Electronic Troubleshooting - II 4 Units  Degree Applicable
54 hours lecture
54 hours lab
Advisory: EST 62
Troubleshooting advanced electronic video circuits and systems to component level. Includes digital TV and HDTV (plasma, LCD, DLP).

EST 70 — C-7 Low Voltage Systems License Preparation 2 Units  Degree Applicable
36 hours lecture
Advisory: EST 56 or ECWT 56 taken prior
Prepares for the California State Contractors C-7 Low Voltage Systems license examination. Students who repeat this course will improve skills through further instruction and practice.

Course Descriptions

EMERGENCY MEDICAL SERVICE

EMS 1 — Fundamentals for Paramedics 4 Units  Degree Applicable
72 hours lecture
Prerequisite: Completed Paramedic Program application, current California EMT I (Basic) certificate, and six months employment as an EMT I
Overview of emergency medical services (EMS) competencies, current practices, medical terminology, emphasis on applied physiology and structure and function of human body systems. Pre-course for the Paramedic Program.

EMS 10 — Anatomy and Physiology for Paramedics 2 Units  Degree Applicable
39 hours lecture
Prerequisite: Admission to Paramedic Program and EMS 1
Gross anatomy and physiology of the human body, with applications to paramedic practices.

EMS 20 — Emergency Cardiac Care for Paramedics 1 Unit  Degree Applicable
20 hours lecture
6 hours lab
Prerequisite: Admission to the Paramedic Program
Certifies paramedics in Basic Life Support (BLS-CPR), Pediatric Advanced Life Support (PALS), and Advanced Cardiac Life Support (ACLS).

EMS 30 — Pharmacology for Paramedics 2 Units  Degree Applicable
39 hours lecture
13 hours lab
Prerequisite: Admission to the Paramedic Program
Commonly used paramedic drugs, with emphasis on dosages supplied and ordered, routes of administration, expected therapeutic outcomes and possible adverse reactions.

EMS 40 — Cardiology for Paramedics 5 Units  Degree Applicable
91 hours lecture
Prerequisite: Admission to the Paramedic Program
Familiarizes the paramedic with the normal and the diseased heart; includes assessment tools, interpretation of various dysrhythmias and appropriate paramedic interventions.
EMGR 24 — Engineering Graphics
(CAN ENGR02)
Degree Applicable, CSU, UC
4 Units
36 hours lecture
108 hours lab
Prerequisite: ENGR 18 and eligibility for MATH 51
Graphical expression through CAD, freehand sketching and instrument drawing; orthographic, isometric and oblique drawing and dimensioning, tolerancing, fasteners, cams, gears, pipe drawings. Descriptive geometry: points, lines and planes. Intersections and developments of solids; sheet metal, electrical and civil engineering/surveying drawings.

EMGR 40 — Statics
(CAN ENGR08)
Degree Applicable, CSU, UC
3 Units
54 hours lecture
Prerequisite: PHYS 4A

EMGR 41 — Dynamics
Degree Applicable, CSU, UC
3 Units
54 hours lecture
Prerequisite: ENGR 40

EMGR 42 — Mechanics of Materials
Degree Applicable, CSU, UC
3 Units
54 hours lecture
Prerequisite: ENGR 40

EMGR 44 — Electrical Engineering
(CAN ENGR06)
Degree Applicable, CSU, UC
4 Units
54 hours lecture
Prerequisite: PHYS 48
Introduction to electrical circuit analysis; systems of units; applications of Kirchhoff's Laws and Thueven's Theorems to D-C and A-C circuits. Mesh and nodal analysis; RL and RC transients; phasors and steady-state sinusoidal analysis; response as a function of frequency; current, voltage, and power relationships; polyphase circuits; periodic forcing functions; Norton's Theorem; three-phase circuits.
ENGINEERING DESIGN TECHNOLOGY

EDT 11 — Technical Engineering Drawing I 3 Units
Degree Applicable, CSU
36 hours lecture
72 hours lab
Advisory: Eligibility for MATH 51
Basic skills for a solid foundation in the Engineering Drawing or Computer-Aided Design fields. Involves application, basic sketch, theories and design processes used in engineering and industrial drawings. Completion of a portfolio is a requirement of this course.

EDT 12 — Technical Engineering Drawing II 3 Units
Degree Applicable, CSU
36 hours lecture
72 hours lab
Advisory: EDT 11
Advanced applications, automated techniques, dimensioning, tolerancing, fasteners, piping, circuit board design, theory used in engineering and industrial drawings. Students will complete a set of working drawings in either manual or CAD for inclusion in a portfolio.

EDT 14 — Mechanical Design - Geometric Dimensioning and Tolerancing 3 Units
Degree Applicable, CSU
36 hours lecture
72 hours lab
Advisory: EDT 11, EDT 12
Use of symbols for tolerance of form and tolerance of position and drawing requirements with respect to actual function and relationship of part features. Studies of related terminology, power transmission, bearing and mechanical devices, related exercises including design layout, details and assembly drawings. Completion of a portfolio is a requirement of this course.

EDT 16 — Basic CAD and Computer Applications 4 Units
Degree Applicable, CSU
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).

EDT 18 — Engineering CAD Applications 4 Units
Degree Applicable, CSU
54 hours lecture
54 hours lab
Advisory: EDT 11, EDT 16
Intermediate CAD for engineering, explores the 2-D and 3-D environments, 3-D parametric solid modeling, file manipulation related to Windows platforms.

EDT 20 — Technical Descriptive Geometry 3 Units
Degree Applicable, CSU
36 hours lecture
72 hours lab
Advisory: EDT 11
Advanced course for solving visual and spatial problems graphically. Applies the principles of orthographic projection and 3-D visualization to solve problems that involve lines, planes, intersections, auxiliary views, and developments. A time saving skill necessary for prospective engineers and technology students.

EDT 24 — Engineering CAD 3-D 3 Units
Degree Applicable, CSU
36 hours lecture
72 hours lab
Advisory: EDT 18
Advanced engineering CAD for developing detailed working drawings in 3-D environments, incorporating 3-D parametric solid modeling, bill of materials, and surface development.

EDT 26 — Civil Engineering Technology and CAD 3 Units
Degree Applicable, CSU
36 hours lecture
72 hours lab
Advisory: EDT 11, EDT 16
Theory of civil engineering projects with hands-on instruction in civil drawings and Computer Aided Drafting and Design (CAD) applications. Layout, topography maps, grading plans, sections, street improvements, and interpretation of surveyor's data are covered. Set of CAD drawings produced for a final portfolio.

EDT 28 — Engineering CAD 3D Illustration/Animation 3 Units
Degree Applicable, CSU
36 hours lecture
72 hours lab
Advisory: EDT 18
Advanced CAD course in three-dimensional illustration using complex entities, shading, and animation techniques. A completed video portfolio will be developed. (SolidWorks, 3DS Max, Adobe PS).

EDT 89 — Engineering Design Technology Work Experience 1 to 2 Units
Degree Applicable
(May be taken four times for credit)
(May be taken for Pass/No Pass only)
75 to 150 hours lab
Prerequisite: Compliance with Work Experience regulations as designated in the College Catalog
Provides on-the-job experience in Engineering Design Technology at an approved work site using skills and knowledge from classroom instruction. A minimum of 75 paid or 60 non-paid clock hours per semester of supervised work is required for each unit of credit. It is recommended that the hours per week be equally distributed throughout the semester. This course is available to students achieving advanced standing (minimum 12 units in major or equivalent experience.) Students who repeat this course will improve skills through further instruction and practice.

ENGLISH: COMPOSITION

ENGL 1A — Freshman Composition 4 Units
(CAN ENGL02) Degree Applicable, CSU, UC
72 hours lecture
Prerequisite: ENGL 68 or satisfactory score on the English Placement Test
Develops effective expository writing skills; investigates the principles and methods of composition as applied to the writing of essays and the research paper; emphasizes critical reading of academic material.

ENGL 1AH — Freshman Composition - Honors 4 Units
(CAN ENGL02) Degree Applicable, CSU, UC
72 hours lecture
Prerequisite: Acceptance into the Honors Program
Develops effective expository writing skills; investigates the principles and methods of composition as applied to the writing of essays and the research paper; emphasizes critical reading of academic material. An honors course designed to provide an enriched experience. Students may not receive credit for both ENGL 1A and ENGL 1AH.

ENGL 1B — English - Introduction to Literary Types 3 Units
(CAN ENGL04) 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.
## Course Descriptions

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Type</th>
<th>Prerequisites</th>
<th>Degree Applicability</th>
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<tr>
<td>ENGL 1B</td>
<td>English - Introduction to Literary Types</td>
<td>3</td>
<td>Honors</td>
<td>(CAN ENGL04) 54 hours lecture</td>
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<tr>
<td>ENGL 1C</td>
<td>Critical Thinking and Writing</td>
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<tr>
<td>ENGL 1D</td>
<td>Creative Writing - Fiction</td>
<td>3</td>
<td>(CAN ENGL06) 54 hours lecture</td>
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<td>ENGL 1E</td>
<td>Creative Writing - Poetry</td>
<td>3</td>
<td>(CAN ENGL06) 54 hours lecture</td>
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<tr>
<td>ENGL 1F</td>
<td>Creative Writing - Nonfiction</td>
<td>3</td>
<td>(CAN ENGL06) 54 hours lecture</td>
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<td>ENGL 1G</td>
<td>Writing the Personal Journal</td>
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<td>ENGL 2A</td>
<td>Creative Writing - Novel</td>
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<td>ENGL 2B</td>
<td>Creative Writing - Poetry Collection</td>
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<td>ENGL 2C</td>
<td>Creative Writing - Memoir</td>
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<tr>
<td>ENGL 3A</td>
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</table>

### Notes
- Prerequisites vary by course.
- Degree Applicability includes Degree Applicable, CSU, UC.
- Courses may be taken for option of letter grade or Pass/No Pass.
- Linked with a corresponding English course, hands-on writing activities are designed to enhance student success and abilities in the linked course. Supplemental learning activities such as individualized instruction; individualized, self-paced practice; group work, and student presentations.
- Courses focus on writing, grammar, and composition, with a range of themes and genres.
- Critical thinking, reading, and writing skills are developed across various writing styles and formats.
<table>
<thead>
<tr>
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<th>Units</th>
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<td>ENGL 75</td>
<td>Vocabulary Building</td>
<td>3</td>
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<td>(May be taken for option of letter grade or Pass/No Pass)</td>
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<td>ENGL 81</td>
<td>Language Acquisition</td>
<td>3</td>
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<td>ENGL 99</td>
<td>Special Projects in English</td>
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<tr>
<td>FCS 41</td>
<td>Life Management</td>
<td>3</td>
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<td>FCS 51</td>
<td>Consumer Skills, Issues, and Strategies</td>
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<td>FCS 91</td>
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<td>FASH 1</td>
<td>Fashion Design and CAD Lab</td>
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<td>FASH 8</td>
<td>Introduction to Fashion</td>
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<td>FASH 9</td>
<td>History of Costume and Fashion</td>
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<td>FASH 10</td>
<td>Clothing Construction I</td>
<td>3</td>
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<td>FASH 12</td>
<td>Clothing Construction II</td>
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<td>FASH 15</td>
<td>Fashion Strategies</td>
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</table>

Course Descriptions

ENGL 68 — Preparation for College Writing

Degree Applicable

(May be taken for option of letter grade or Pass/No Pass)

72 hours lecture

Prerequisite: ENGL 67 or AMLA 43W or satisfactory score on the English Placement Test

Using an integrated approach, continues to develop effective writing based on reading. Reviews paragraph structure, emphasizes development of the academic essay, and introduces principles of documentation. Continues to develop critical thinking through reading of and writing about increasingly complex texts.

ENGL 75 — Vocabulary Building

3 Units

(May be taken for option of letter grade or Pass/No Pass)

54 hours lecture

Expands students’ reading, writing and speaking vocabularies through examination of the principles of word formation, emphasizing prefixes, roots, suffixes and the effective use of dictionaries and other reference works. Students who repeat this course will improve skills through further instruction and practice.

ENGL 81 — Language Acquisition

3 Units

Degree Applicable, CSU

54 hours lecture

Prerequisite: ENGL 1A

Introductory course in language structure, linguistics, language development. Explores first and second language acquisition. Meets the Commission on Teaching Credentialing standards for Language Acquisition requirement for elementary school teaching credential.

ENGL 99 — Special Projects in English

2 Units

Degree Applicable, CSU

(May be taken for option of letter grade or Pass/No Pass)

36 hours lecture

To offer selected students recognition for their academic interests and ability and the opportunity to explore their disciplines to greater depth, the various departments from time to time offer Special Projects courses. The content of each course and the methods of study vary from semester to semester and depend on the particular project under consideration. Students repeating this course will make individual contracts of a more advanced nature with the instructor to ensure that proficiencies are enhanced.

FCS 41 — Life Management

3 Units

Degree Applicable, CSU

54 hours lecture

Life Management provides individuals with skills for understanding and using resources for effective functioning now and in the future. Explores theories of management including Maslow’s Hierarchy of Needs and systems thinking, and how they apply to the day-to-day use of one’s resources including time, energy, abilities, and money. Major topics include steps in value clarification, goal setting, decision making, problem solving, time management, money management, education and career planning, communication skills, handling change and stress, and conflict management. In addition, the course explores the effect of cultural forces and future trends on goals, values, standards, and time management.

FCS 51 — Consumer Skills, Issues, and Strategies

3 Units

Degree Applicable, CSU

54 hours lecture

Consumer skills with an emphasis on practical applications in the marketplace. Topics include history of the consumer movement, consumer rights and responsibilities, financial wellness, consumer debt, behavior, fraud, and redress. Explores the relationship between consumer skills, careers, and job skills.

FCS 80 — Financial Planning

3 Units

Degree Applicable, CSU

54 hours lecture

Functional approach to personal finance, including budget systems, consumer credit, health care and insurance, debt collection systems, status obligation, accumulating reserves. Examines short-term and long-term financial goals. Applicable for personal and professional use. Students may not earn credit for both BUSA 71 and FCS 80.

FCS 91 — Work Experience in Family and Consumer Sciences

1 Unit

Degree Applicable

(May be taken four times for credit)

(May be taken for Pass/No Pass only)

75 hours lab

Prerequisite: Compliance with work experience regulations as designated in the College Catalog.

Provides Family and Consumer Science majors with actual on-the-job experience in an approved work site related to classroom instruction. A minimum of 75 paid or 60 non-paid clock hours per semester of supervised work is required for each unit of credit. It is recommended that the hours per week be equally distributed throughout the semester. Work experience placement is not guaranteed but assistance is provided by the Family and Consumer Sciences faculty. Students who repeat this course will improve skills through further instruction and practice.

FASH 1 — Fashion Design and CAD Lab

1 Unit

Degree Applicable

(May be taken three times for credit)

(May be taken for Pass/No Pass only)

54 hours lab

Provides design and computer laboratory experience to supplement regular program, and provides opportunities for students to pursue more advanced projects. Students who repeat this course will improve skills through further instruction and practice.

FASH 8 — Introduction to Fashion

3 Units

Degree Applicable, CSU

54 hours lecture

Examines scope of the fashion industry from concept to consumer: industry background and technology. Includes design, manufacturing, distribution, sales and promotion with emphasis on career opportunities and qualifications.

FASH 9 — History of Costume and Fashion

3 Units

Degree Applicable, CSU

54 hours lecture

A survey of Western costume and fashion from antiquity to contemporary times. Emphasis is placed on style development as it relates to social, economic and political forces, and the relationship of historic styles to current fashion.

FASH 10 — Clothing Construction I

3 Units

Degree Applicable, CSU

(CAN FCS10)

36 hours lecture

54 hours lab

Development of a basic understanding of industry standard apparel construction techniques using a variety of machines and equipment. Included are marker preparation, commercial patterns, basic block fusing, and garment construction of slim skirt/pants, dress/shirt, and knit “T” shirt.

FASH 12 — Clothing Construction II

3 Units

Degree Applicable, CSU

36 hours lecture

54 hours lab

Prerequisite: FASH 10

Provides industry-quick alternatives to traditional construction and tailoring techniques using overlock and single needle machines. Hands-on experience using woven fabrics for tailored clothing and novelty knits.

FASH 15 — Fashion Strategies

3 Units

Degree Applicable, CSU

(CAN FCS20)

54 hours lecture

An investigative overview of sociological, psychological, cultural and fashion industry influences on clothing selection. The elements and principles of design and their impact on dress will be explored.
COURSE DESCRIPTIONS

FASH 17 — Textiles 3 Units
(CAN FCS06) Degree Applicable, CSU, UC
54 hours lecture
Examines the manufacturing of textiles/fabrics and factors that determine the suitability for end use. Topics covered include natural and synthetic fibers, yarns, fabric construction, dyes, finishes, legislation and care. Emphasis is placed on selection criteria for textile product design and recent developments in the textile field.

FASH 20 — Illustration for Fashion and Costume Design 3 Units
36 hours lecture
54 hours lab
Drawing techniques for fashion and theatrical costume design. Application of the basic techniques used in drawing a well-proportioned male and female figure and in rendering garment flats using texture, fabric, and design detail. Students will explore a variety of mediums.

FASH 21 — Patternmaking I 3 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, slopers 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
Three dimensional dress design through draping fabrics directly to a dress form to create original designs or to interpret fashion illustrations.

FASH 23 — Patternmaking II 3 Units
Degree Applicable
36 hours lecture
54 hours lab
Prerequisite: FASH 21
Intermediate pattern drafting and flat patternmaking, with the introduction to the sizing of patterns/grading. Development of patternmaking skills to include two-way stretch knits, swimwear, and complex construction. Students apply commercial manufacturing standards in producing size ranges for misses’ and women’s wear, to include skirts, pants, bodices, sleeves and collars.

FASH 24 — Fashion Patternmaking by Computer 3 Units
Degree Applicable
36 hours lecture
54 hours lab
Prerequisite: FASH 21
Study of the applications of Computer Aided Design (CAD) patternmaking and grading for the fashion industry. Exploration of drawing techniques, pattern development, flat pattern manipulation and the sizing/grading of patterns.

FASH 25 — Fashion Computer-Assisted Drawing 3 Units
Degree Applicable
36 hours lecture
54 hours lab
Prerequisite: FASH 20
Drawing production flats, colorization and scanning images using computer as a drafting tool. Exploration of popular computer techniques and methods suitable for use in apparel industry. Concentration on Adobe Illustrator and Adobe Photoshop.

FASH 26 — Fashion Computer Assisted Design 2 Units
Degree Applicable
18 hours lecture
54 hours lab
Use an advanced, industry-specific CAD system to produce high-level graphic presentations. Create color palettes, textiles, and surface designs; explore texture mapping and how it is used to create a natural drape on the fashion figure; and use the computer as a layout design tool for swatches and vector flat drawings.

FASH 28 — Fashion Design and Product Development I 3 Units
Degree Applicable
54 hours lecture
Prerequisite: FASH 10
Overview of the global environment for product development for fashion. Applies the concepts and methods by which retailers create special store-branded merchandise for targeted customer segments. Students will develop financial and design goals, create product concept and line-boards, and evaluate the aesthetic and commercial results.

FASH 31 — Fashion Design and Product Development II 3 Units
Degree Applicable
36 hours lecture
54 hours lab
Prerequisite: FASH 28, FASH 21 or 22, and FASH 30
Intermediate fashion students will create and maintain a personal design sketchbook and work with the basic categories of swim wear, active wear, children’s and junior clothing. Industrial techniques of drawing production flats and design room sketches are taught in addition to the full fashion figure. Projects will include creation of lines including production flats, textile selection, cost sheets, full-color illustrations and full scale patterns.

FASH 32 — Fashion Design and Product Development III 3 Units
Degree Applicable
36 hours lecture
54 hours lab
Prerequisite: FASH 31
Advanced fashion design and product development emphasizing, in portfolio format, a minimum of three lines with production flats, scale patterns, pattern charts, cost sheets and sample garments. A design sketchbook will be maintained. Includes resume preparation and job search appropriate for the fashion design industry.

FASH 33 — Special Topics in Fashion Design 2 Units
Not Degree Applicable
(May be taken four times for credit)
18 hours lecture
54 hours lab
Prerequisite: FASH 20
Provides exploratory design experience to enhance basic fashion design curriculum. Students will explore advanced garment design and/or construction techniques. Students who repeat this course will improve skills through further instruction and practice.

FASH 62 — Retail Store Management and Merchandising 3 Units
Degree Applicable, CSU
54 hours lecture
Principles and practices used in the management and merchandising of retail stores. Includes all aspects of the critical buying function, merchandising, promotional techniques, site selection, layout, staffing, market positioning and customer service. Students may not receive credit for both FASH 62 and BUSS 50.

FASH 63 — Advertising and Promotion 3 Units
Degree Applicable, CSU
54 hours lecture
Characteristics and role of advertising and promotion in business are explored. Emphasis is placed on promotional mix, trend and forecast research, and developing a comprehensive multimedia promotion plan including advertising layout and copy. Students may not receive credit for both FASH 63 and BUSS 33.

FASH 66 — Visual Merchandising Display 3 Units
Degree Applicable, CSU
36 hours lecture
54 hours lab
Analysis of visual merchandising applied to interior and exterior displays and floor merchandising within the fashion industry. Includes psychology of store layout, current methods of visual merchandising, and use of mannequins, pinning, and flying.
### COURSE DESCRIPTIONS

**FASH 81 — Work Experience in Fashion**  
1 to 3 Units  
Degree Applicable  
(May be taken four times for credit)  
(May be taken for Pass/No Pass only)  
Provides fashion students with actual on-the-job experience in an approved work site which is related to classroom-based learning. A minimum of 75 paid clock hours or 60 non-paid clock hours per semester is required for each one unit of credit. Students who repeat this course will improve skills through further instruction and practice.

**FASH 90 — Field Studies**  
1 Unit  
Degree Applicable  
(May be taken two times for credit)  
18 hours lecture  
Pre-trip lectures on the development of the ready-to-wear industry including background information on specific designer studios, factories, and retail stores to be visited, plus travel information for the trip. Students who repeat this course will improve skills through further instruction and practice.  
(May be taken for Pass/No Pass only)

**FASH 91 — Field Studies - New York**  
2 Units  
Degree Applicable  
(May be taken two times for credit)  
36 hours lecture  
Corequisite: FAM 90 (may have been taken previously)  
Fashion industry travel study in New York City with daily scheduled lectures and field studies of the diverse fashion industries to include major designers, fashion trend services, retailers, manufacturers, costume/textile exhibits and archives, and museums. Students who repeat this course will improve skills through further instruction and practice.

**FASH 92 — Field Studies - Fashion Capitals**  
3 Units  
Degree Applicable  
(May be taken two times for credit)  
54 hours lecture  
Corequisite: FAM 90 (may have been taken previously)  
Fashion industry travel study to fashion capitals with daily scheduled lectures and field studies of the diverse international industry to include designers, fashion trend services, retailers, manufacturers, textile mills, costume/textile exhibits and archives, and museums. Students who repeat this course will improve skills through further instruction and practice.

### FIRE TECHNOLOGY

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
<th>Description</th>
</tr>
</thead>
</table>
| **FIRE 1 — Fire Protection Organization** | 3     | 54 hours lecture  
Career options and opportunities in fire protection and related fields; history of fire protection, fire loss analysis, public, quasi-public and private fire protection services; specific fire protection functions; fire chemistry and physics. |
| **FIRE 2 — Fire Prevention Technology** | 3     | 54 hours lecture  
Introduction and history of fire prevention, including codes, ID and correction of hazards, investigation, and safety education.         |
| **FIRE 3 — Fire Protection Equipment and Systems** | 3     | 54 hours lecture  
Includes the study of portable fire extinguishing equipment, sprinkler systems, protection systems for special hazards, fire alarm and detection systems, design and operation of sprinkler systems, water supply and fire extinguishers. |
| **FIRE 4 — Building Construction for Fire Protection** | 3     | 54 hours lecture  
Building construction and fire code safety effects on preplanning, engineering, inspections, fire ground operations, fire and building codes relationships. |
| **FIRE 5 — Fire Behavior and Combustion** | 3     | 54 hours lecture  
Theory of how and why fires start, spread and are controlled; in-depth study of fire chemistry and physics, fire characteristics of materials, extinguishing of materials, extinguishing agents and fire control techniques. |
| **FIRE 6 — Hazardous Materials/ICS** | 3     | 54 hours lecture  
Hazardous chemicals, their physical properties, use in industry, characteristics when involved in spills, fire and accidents. Information regarding emergency procedures, legal requirements, compliance to regulations, health effects and treatment, fire department protocols and responsibilities that meet OSHA requirements. |
| **FIRE 7 — Fire Fighting Tactics and Strategy** | 3     | 54 hours lecture  
Advisory: FIRE 1 or equivalent taken prior  
Principles of fire control through utilization of manpower, equipment and extinguishing agents, fire command and control procedures, utilization on types of building construction in fire control, review of fire chemistry, pre-fire planning, organized approach to decision making on the fire scene, basic fire fighting tactics and strategy. |
| **FIRE 8 — Fire Company Organization and Management** | 3     | 54 hours lecture  
Advisory: FIRE 1  
Review of fire department organization, fire company organization, the company officer, personnel administration, communication, fire equipment, maintenance, training, fire prevention, fire fighting, company fire fighting capability, records and reports. |
| **FIRE 9 — Fire Hydraulics** | 3     | 54 hours lecture  
Advisory: FIRE 1 or equivalent taken prior and eligibility for MATH 51  
Review of basic mathematics, hydraulic laws and formulas as applied to fire service, application of formulas and mental calculation to hydraulic problems, water supply problems, underwriter requirements for pumps. |
| **FIRE 10 — Arson and Fire Investigation** | 3     | 54 hours lecture  
Advisory: FIRE 1 or equivalent taken prior  
Introduction to cause, origin, arson, incendiaryism, related laws and types of incendiary fires. Methods of determining fire cause, recognizing and preserving evidence, interviewing and detaining witnesses, procedures for handling juveniles, court procedure and testimony. |
| **FIRE 11 — Fire Apparatus and Equipment** | 3     | 54 hours lecture  
Advisory: FIRE 1 or equivalent taken prior  
Mechanized equipment operated by the fire service personnel and regulations pertaining to their use. Includes driving laws, driving techniques, construction and operation of pumping engines, ladder trucks, aerial platforms, specialized equipment, and apparatus maintenance. |
| **FIRE 12 — Wildland Fire Control** | 4     | 80 hours lecture  
Advisory: Eligibility for ENGL 68  
Addresses wildland fire behavior, safety considerations, strategy, tactics, and operational differences within the wildland urban interface. |
COURSE DESCRIPTIONS

FIRE 20 — Fire Instructor 1A 2 Units
Degree Applicable
40 hours lecture
Advisory: FIRE 6 or equivalent taken prior
State Board of Fire Service accredited course in fire service instructional techniques, including lesson plan development, performance goals, evaluation techniques, instructor performance goals, instructor responsibilities, the learning process, instructional aids and training records. This course applies to California Fire Service Training and Education System certifications.

FIRE 21 — Fire Instructor 1B 2 Units
Degree Applicable
40 hours lecture
Advisory: FIRE 20 or equivalent taken prior
State Board of Fire Service accredited course in fire service instructional techniques, including methods of instruction, use of audio-visual equipment, employment of instructional aids, test construction, teaching demonstrations and reducing failure rates. This course applies to California Fire Service Training and Educational Systems certifications.

FIRE 22 — Fire Instructor 2A 2 Units
Degree Applicable
40 hours lecture
Advisory: FIRE 21 or equivalent taken prior
Level II preparation for fire science instructors training officers with emphasis on leadership, interpersonal relations, developing and conducting staff meetings, assertive and argumentative presentations and encouraging staff participation. A State Board of Fire Science accredited course.

FIRE 23 — Fire Instructor 2B 2 Units
Degree Applicable
40 hours lecture
Advisory: FIRE 21 or equivalent taken prior
Organizational communication skills for training officers with emphasis on leadership, interpersonal relations, developing and conducting staff meetings, assertive and argumentative presentations and encouraging staff participation. A State Board of Fire Science accredited course.

FIRE 24 — Fire Instructor 2C 2 Units
Degree Applicable
40 hours lecture
Advisory: FIRE 21 or equivalent taken prior
Preparation for fire personnel instructor/training officer. Principles of media use in the instruction process, selection of audio-visual and instructional media, employment of basic advanced forms of instructional media, use of computers in the instructional process, individual instructional programs. A State Board of Fire Science accredited course.

FIRE 24 — Fire Instructor 2C 2 Units
Degree Applicable
40 hours lecture
Advisory: FIRE 21 or equivalent taken prior
Preparation for fire personnel instructor/training officer. Principles of media use in the instruction process, selection of audio-visual and instructional media, employment of basic advanced forms of instructional media, use of computers in the instructional process, individual instructional programs. A State Board of Fire Science accredited course.

FIRE 25 — Fire Instructor 3B 2 Units
Degree Applicable
40 hours lecture
Advisory: FIRE 24 or equivalent taken prior
Preparation for fire personnel instructor/training officer. Principles of media use in the instruction process, selection of audio-visual and instructional media, employment of basic advanced forms of instructional media, use of computers in the instructional process, individual instructional programs. A State Board of Fire Science accredited course.

FIRE 26 — Fire Instructor 3C 2 Units
Degree Applicable
40 hours lecture
Advisory: FIRE 25 or equivalent taken prior
Preparation for fire personnel instructor/training officer. Principles of media use in the instruction process, selection of audio-visual and instructional media, employment of basic advanced forms of instructional media, use of computers in the instructional process, individual instructional programs. A State Board of Fire Science accredited course.

FIRE 27 — Fire Instructor 3D 2 Units
Degree Applicable
40 hours lecture
Advisory: FIRE 26 or equivalent taken prior
Preparation for fire personnel instructor/training officer. Principles of media use in the instruction process, selection of audio-visual and instructional media, employment of basic advanced forms of instructional media, use of computers in the instructional process, individual instructional programs. A State Board of Fire Science accredited course.

FIRE 28 — Fire Instructor 3E 2 Units
Degree Applicable
40 hours lecture
Advisory: FIRE 27 or equivalent taken prior
Preparation for fire personnel instructor/training officer. Principles of media use in the instruction process, selection of audio-visual and instructional media, employment of basic advanced forms of instructional media, use of computers in the instructional process, individual instructional programs. A State Board of Fire Science accredited course.

FIRE 29 — Fire Instructor 3F 2 Units
Degree Applicable
40 hours lecture
Advisory: FIRE 28 or equivalent taken prior
Preparation for fire personnel instructor/training officer. Principles of media use in the instruction process, selection of audio-visual and instructional media, employment of basic advanced forms of instructional media, use of computers in the instructional process, individual instructional programs. A State Board of Fire Science accredited course.

FIRE 30 — Fire Management 1 2 Units
Degree Applicable
40 hours lecture
Advisory: FIRE 6 or FIRE 8 or equivalent taken prior
State Board of Fire Service accredited course in fire management designed to develop an understanding of the changing role of the fire officer, building leadership skills, appraising and developing employee performance and communication skills.

FIRE 31 — Fire Management 2A - Organizational Development and Human Relations 2 Units
Degree Applicable
40 hours lecture
Advisory: FIRE 30 taken prior
Level II California Fire Service Training and Education System chief officers certified course in basic principles of organization and development of general management skills. Includes problem solving, cultural diversity, motivation, performance management and organizational politics.

FIRE 32 — Fire Management 2B - Fire Service Financial Management 2 Units
Degree Applicable
40 hours lecture
Advisory: FIRE 30
Budget preparation and financial management of personnel, stations, fire equipment, and other fire department resources.

FIRE 33 — Fire Management 2D - Master Planning in the Fire Service 2 Units
Degree Applicable
40 hours lecture
Advisory: FIRE 31
For fire personnel responsible for master planning fire protection needs for a city, county or state fire agency. Covers program and master planning, forecasting, systems, policy analysis and design.

FIRE 34 — Fire Management 2E - Personnel and Labor 2 Units
Degree Applicable
40 hours lecture
Advisory: FIRE 31
For fire supervisors and managers responsible for supervision, implementing department policies, diversity, labor relations, human resources and legal issues.

FIRE 35 — Fire Management 2F - Administrative and Financial Management 2 Units
Degree Applicable
40 hours lecture
Advisory: FIRE 30
For second level defensive officer and above. Covers budget preparation, record management, exit requirements, electrical hazards, plan review and safety education.

FIRE 36 — Fire Management 3A - Organizational Development and Human Relations 2 Units
Degree Applicable
40 hours lecture
Advisory: FIRE 35 taken prior
Level II California Fire Service Training and Education System chief officers certified course in basic principles of organization and development of general management skills. Includes problem solving, cultural diversity, motivation, performance management and organizational politics.

FIRE 37 — Fire Management 3B - Fire Service Financial Management 2 Units
Degree Applicable
40 hours lecture
Advisory: FIRE 35
Budget preparation and financial management of personnel, stations, fire equipment, and other fire department resources.

FIRE 38 — Fire Management 3C - Master Planning in the Fire Service 2 Units
Degree Applicable
40 hours lecture
Advisory: FIRE 36
For fire personnel responsible for master planning fire protection needs for a city, county or state fire agency. Covers program and master planning, forecasting, systems, policy analysis and design.

FIRE 39 — Fire Management 3D - Personnel and Labor 2 Units
Degree Applicable
40 hours lecture
Advisory: FIRE 36
For fire supervisors and managers responsible for supervision, implementing department policies, diversity, labor relations, human resources and legal issues.

FIRE 40 — Fire Prevention 1A 2 Units
Degree Applicable
40 hours lecture
Advisory: FIRE 3, FIRE 86, or equivalent taken prior
First Level I course qualifies the student as a Certified Prevention Officer through the California Fire Service Training and Education System. Includes responsibilities of fire prevention personnel, procedures for correcting hazards, origin and history of fire prevention efforts in the U.S., basic fire prevention functions, occupancy identification, building preparation, record management, exit requirements, electrical hazards, plan review and safety education.

FIRE 41 — Fire Prevention 1B 2 Units
Degree Applicable
40 hours lecture
Advisory: FIRE 40 or equivalent taken prior
Second Level I California Fire Service Training and Education System certified course in fire prevention. Includes relationship of life safety codes and building construction principles, exiting requirements, fire protection systems, basic electrical theory, fire drills and training, fire inspection reports, plans specifications processing, and fire prevention complaints.

FIRE 42 — Fire Prevention 1C 2 Units
Degree Applicable
40 hours lecture
Advisory: FIRE 40 and FIRE 41 or equivalent taken prior
Third Level I California Fire Service Training and Education System certified course in fire prevention. Includes physical properties of flammable and combustible liquids, storage practices, transportation and controlling of flammable and liquefied gases.

FIRE 43 — Fire Prevention 2A 2 Units
Degree Applicable
40 hours lecture
Advisory: FIRE 40 or equivalent taken prior
Second Level II California Fire Service Training and Education System chief officers certified course in basic principles of organization and development of general management skills. Includes problem solving, cultural diversity, motivation, performance management and organizational politics.

FIRE 44 — Fire Prevention 2B 2 Units
Degree Applicable
40 hours lecture
Advisory: FIRE 40, FIRE 41, FIRE 42 or equivalent taken prior
Second Level II California Fire Service Training and Education Systems certified course in fire prevention for fire personnel. Includes interpreting the fire and building codes, California codes of regulation pertaining to fire and life safety standards.
FIRE 45 — Fire Prevention 2C 2 Units
40 hours lecture
Advisory: FIRE 40, FIRE 41, FIRE 42 or equivalent taken prior
Third Level II California Fire Service Training and Education System
certified course in fire prevention for fire personnel. Includes standards
required for industrial ovens, cleaning and finishing processes, welding,
refrigeration systems, medical gasses and fireworks.

FIRE 50 — Fire Command 1A 2 Units
40 hours lecture
Advisory: FIRE 50 or equivalent taken prior
Level I California Fire Service Training and Education System certified
course designed for first-in-incident commander and company officers.
Includes command principles for company officers, initial decision and
action processes at a working fire, fire behavior, fireground resources,
operations and management.

FIRE 51 — Fire Command 1B 2 Units
40 hours lecture
Advisory: FIRE 50 or equivalent taken prior
Level I California Fire Service Training and Education System certified
course designed for first-in-incident commander and company officers.
Provides incident management information on tactics, strategies, and
scene management for multi-casualty incidents, hazardous materials
incidents, and wildland fires.

FIRE 52 — Fire Command 2A - Command Tactics at Major Fires 2 Units
40 hours lecture
Advisory: FIRE 51
For fire officers managing fires using the Incident Command System
(ICS) when commanding multiple alarms. Includes unified command
structures and areas of geographical divisions.

FIRE 53 — Fire Command 2B - Management of Major Hazardous Material Incidents 2 Units
40 hours lecture
Advisory: FIRE 51
For fire officers responsible for hazardous material responses. Includes
community planning, research, legislation enforcement and litigation
from hazardous material responses.

FIRE 54 — Fire Command 2C - High-Rise Fire Tactics 2 Units
40 hours lecture
Advisory: FIRE 51
A system-based approach applied to high-rise fires. Includes pre-fire
planning, building inventory, problem identification, ventilation methods,
water supply, elevators, life safety and strategy and tactic operations.

FIRE 55 — Fire Command 2D - Disaster Planning and Management 2 Units
40 hours lecture
Advisory: FIRE 51 taken prior
Level II California Fire Service Training and Education System chief
officer certified course for supervisory and managerial fire service personnel
responsible for emergency disaster planning and implementing the Standard Emergency Management System,
emphasizing the integrated team approach to managing emergencies.

FIRE 56 — Fire Command 2E - Wildland Fire Control 2 Units
40 hours lecture
Advisory: FIRE 51
For supervisory and managerial fire service personnel responsible for
management and coordination of an extended wildland fire incident.

FIRE 57 — Fire Investigation 1A 2 Units
40 hours lecture
Advisory: FIRE 50, FIRE 60, or equivalent taken prior
Level I California Fire Service Training and Education System certified
course designed for firefighters, fire investigators and law enforcement
officers assigned to fire investigation. Includes a basic overview of fire
scene investigation with the focus on fire scene indicators and
determine the fire's cause and origin.

FIRE 58 — Fire Investigation 1B 2 Units
40 hours lecture
Advisory: FIRE 60 or equivalent taken prior
Level I California Fire Service Training and Education System certified
course designed for firefighters and investigation personnel. Includes
juvenile fire setter, report writing, evidence preservation and collection,
interview techniques, motives and fatalities.

FIRE 60 — Fire Investigation 2A - Fire Cause Determination 1 2 Units
40 hours lecture
Advisory: FIRE 60, FIRE 61
Designed for in-service fire personnel completing their Fire Investigation
II Certification and provides the information to successfully investigate,
prehend, and convict arsonists.

FIRE 61 — Fire Investigation 2B - Fire Cause Determination 2 2 Units
40 hours lecture
Advisory: FIRE 61 and FIRE 62
Designed for in-service fire personnel completing their Fire Investigation
II Certification that builds on the Fire Investigation 1 course (FIRE 62).

FIRE 62 — Fire Investigation 2A - Fire Cause Determination I 2 Units
40 hours lecture
Advisory: FIRE 60, FIRE 61
Designed for in-service fire personnel completing their Fire Investigation
II Certification and provides the information to successfully investigate,
prehend, and convict arsonists.

FIRE 63 — Fire Investigation 2B - Fire Cause Determination II 2 Units
40 hours lecture
Advisory: FIRE 61 and FIRE 62
Designed for in-service fire personnel completing their Fire Investigation
II Certification that builds on the Fire Investigation 1 course (FIRE 62).

FIRE 64 — Fire Investigation 2C - Fire Cause Determination III 2 Units
40 hours lecture
Advisory: FIRE 61 and FIRE 62
Designed for in-service fire personnel completing their Fire Investigation
II Certification that builds on the Fire Investigation 1 course (FIRE 62).

FIRE 65 — Special Issues in Fire Technology 2 Units
40 hours lecture
Advisory: FIRE 40 or equivalent taken prior
California Fire Service Training and Education System certified accredited
course in fire prevention for fire personnel. Includes standards required for
understanding, interpreting and applying State Fire Marshall's Regulation
requirements based on type of occupancy, construction, fire extinguishing
systems, exits, alarm systems and institutional occupancies.

FIRE 66 — Basic Fire Academy 12 Units
138 hours lecture
382 hours lab
Prerequisite: FIRE 1 through FIRE 6 or equivalent, PE 50 or equivalent, EMT
certified, and either PE-F 50 or PE-F 51 or PE-F 52 (or equivalent)
Corequisite: PE-F 53
Instruction in the proper use of standard fire department apparatus and
equipment, salvage covers and fire extinguishment techniques, etc., in
accordance with the State Board of Fire Services. Prepares students to
meet manipulative skills standards established by the local fire
agencies, associations and unions.

FIRE 68 — Explorer Fire Academy 2 Units
120 hours lecture
Prerequisite: FIRE 1 through FIRE 6 or equivalent, PE 50 or equivalent, EMT
certified and either PE-F 50 or PE-F 51 or PE-F 52 (or equivalent)
Corequisite: PE-F 53
Specialized Fire Academy designed for fire explorers. Instruction in the
proper use of fire and rescue apparatus and equipment and fire
extinguishing techniques in accordance with the State of California Fire
Marshalls Office.

FIRE 69 — Firefighter Exam Preparation .5 Unit
48 hours lab
Prerequisite: FIRE 1 through FIRE 6 or equivalent, PE 50 or equivalent, EMT
certified and either PE-F 50 or PE-F 51 or PE-F 52 (or equivalent)
Corequisite: PE-F 53
Prepares applicants for entry-level firefighter positions for the CWH
Research Inc. Firefighter Exam, offered in conjunction with the Los
Angeles Area Fire Chief's Association. Two four-hour sessions including
administration of written examination.
## Course Descriptions

### FRENCH

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Units</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>FRCH 1</td>
<td>Elementary French</td>
<td>4 Units</td>
<td>Intended for students without previous exposure to French. Begins to develop the ability to converse, read and write in French. Emphasis is on oral proficiency. Includes the study of principles of language learning, pronunciation, basic vocabulary and grammatical structures. Extensive exposure to the cultures of French-speaking countries.</td>
</tr>
<tr>
<td>FRCH 2</td>
<td>Continuing Elementary French</td>
<td>4 Units</td>
<td>Provides further insight into the cultures of France and other French-speaking countries to reach an advanced level of proficiency in the language. Includes analysis of short literary works from diverse cultures, and group discussions about contemporary topics found in films and newspaper articles.</td>
</tr>
<tr>
<td>FRCH 3</td>
<td>Intermediate French</td>
<td>4 Units</td>
<td>Further development of conversational, reading and writing skills in French. Emphasis on communicative skills, expansion of vocabulary and practical use of language. Extensive exposure to the cultures of French-speaking countries.</td>
</tr>
<tr>
<td>FRCH 4</td>
<td>Continuing Intermediate French</td>
<td>4 Units</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>
</tr>
<tr>
<td>FRCH 5</td>
<td>Advanced French</td>
<td>4 Units</td>
<td>Extensive exposure to the cultures of France and other French-speaking countries.</td>
</tr>
<tr>
<td>FRCH 52</td>
<td>Conversational French 1</td>
<td>3 Units</td>
<td>Development of intermediate French conversational skills. Emphasis on collaborative activities and practical use of the language. Extensive exposure to French culture. Grammar is presented in context.</td>
</tr>
<tr>
<td>FRCH 53</td>
<td>Intermediate Conversational French</td>
<td>3 Units</td>
<td>Further development of conversational French. Emphasis on practical use of language.</td>
</tr>
</tbody>
</table>

### GEOGRAPHY

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Units</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOG 1</td>
<td>Elements of Physical Geography</td>
<td>3 Units</td>
<td>Study of the natural processes that interact to create the Earth’s varying physical environments with emphasis on the inter-relationships of natural processes and systems. General atmospheric circulation, Earth-sun relationships, oceanic circulation, water and energy budgets, plate tectonics, and the shaping of the physical landscape.</td>
</tr>
<tr>
<td>GEOG 1H</td>
<td>Elements of Physical Geography - Honors</td>
<td>3 Units</td>
<td>Study of the natural processes that interact to create the Earth’s varying physical environments with emphasis on the inter-relationships of natural processes and systems. General atmospheric circulation, Earth-sun relationships, oceanic circulation, water and energy budgets, plate tectonics, and the shaping of the physical landscape. An honors course designed to provide an enriched experience. Students may not receive credit for both GEOG 1 and GEOG 1H.</td>
</tr>
<tr>
<td>Course Code</td>
<td>Course Title</td>
<td>Units</td>
<td>Degree Applicable, CSU, UC</td>
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</tr>
<tr>
<td>GEOG 1L</td>
<td>Physical Geography Laboratory</td>
<td>1 Unit</td>
<td>Degree Applicable, CSU, UC</td>
</tr>
<tr>
<td>GEOG 1LH</td>
<td>Physical Geography Laboratory - Honors</td>
<td>1 Unit</td>
<td>Degree Applicable, CSU, UC</td>
</tr>
<tr>
<td>GEOG 2</td>
<td>Human Geography (CAN GEOG04)</td>
<td>3 Units</td>
<td>Degree Applicable, CSU, UC</td>
</tr>
<tr>
<td>GEOG 3</td>
<td>Map Reading and Interpretation</td>
<td>3 Units</td>
<td>Degree Applicable, CSU</td>
</tr>
<tr>
<td>GEOG 5</td>
<td>World Regional Geography</td>
<td>3 Units</td>
<td>Degree Applicable, CSU, UC</td>
</tr>
<tr>
<td>GEOG 8</td>
<td>The Urban World</td>
<td>3 Units</td>
<td>Degree Applicable, CSU, UC</td>
</tr>
<tr>
<td>GEOG 10</td>
<td>Introduction to Geographic Information Systems</td>
<td>3 Units</td>
<td>Degree Applicable, CSU, UC</td>
</tr>
<tr>
<td>GEOG 11</td>
<td>Intermediate GIS</td>
<td>3 Units</td>
<td>Degree Applicable, CSU</td>
</tr>
<tr>
<td>GEOG 11LH</td>
<td>Physical Geography Laboratory - Honors</td>
<td>1 Unit</td>
<td>Degree Applicable, CSU, UC</td>
</tr>
<tr>
<td>GEOG 2H</td>
<td>Human Geography - Honors</td>
<td>3 Units</td>
<td>Degree Applicable, CSU</td>
</tr>
<tr>
<td>GEOG 30</td>
<td>Geography of California</td>
<td>3 Units</td>
<td>Degree Applicable, CSU, UC</td>
</tr>
<tr>
<td>GEOG 49</td>
<td>Special Projects in Geography</td>
<td>2 Units</td>
<td>Degree Applicable, CSU</td>
</tr>
<tr>
<td>GEOL 1</td>
<td>Physical Geology</td>
<td>4 Units</td>
<td>Degree Applicable, CSU, UC</td>
</tr>
<tr>
<td>GEOL 2</td>
<td>Historical Geology</td>
<td>4 Units</td>
<td>Degree Applicable, CSU, UC</td>
</tr>
<tr>
<td>GEOL 3</td>
<td>Paleontology, Life of the Past</td>
<td>4 Units</td>
<td>Degree Applicable, CSU, UC</td>
</tr>
<tr>
<td>GEOL 5</td>
<td>Earthquakes</td>
<td>1 Unit</td>
<td>Degree Applicable, CSU</td>
</tr>
<tr>
<td>GEOL 6</td>
<td>Geology of California</td>
<td>3 Units</td>
<td>Degree Applicable, CSU, UC</td>
</tr>
<tr>
<td>GEOL 7</td>
<td>Geology of California</td>
<td>3 Units</td>
<td>Degree Applicable, CSU, UC</td>
</tr>
</tbody>
</table>

For more courses and detailed descriptions, please refer to the provided course descriptions.
Course Descriptions

GEOL 8 — Earth Science 3 Units  
Degree Applicable, CSU, UC  
54 hours lecture  
A survey course that introduces fundamentals of geology, oceanography, meteorology, and astronomy. The companion Earth Science laboratory (GEOL 8L) is recommended for students needing a lab to transfer to a 4-year college/university. Field trips are required.

GEOL 8H — Earth Science - Honors 3 Units  
Degree Applicable, CSU, UC  
54 hours lecture  
Prerequisite: Acceptance into the Honors Program  
An honors course designed to provide an enriched experience. Introduces fundamentals of geology, oceanography, meteorology, and astronomy. The companion Earth Science laboratory (GEOL 8L) is recommended for students needing a lab to transfer to a 4-year college/university. Field trips are required. Students may not receive credit for both GEOL 8 and GEOL 8H.

GEOL 8L — Earth Science Laboratory 1 Unit  
Degree Applicable, CSU, UC  
54 hours lab  
Concurrent 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  
For non-science majors. Relevant aspects of the geological environment and the problems caused by modern humans as they use the earth and its resources. Geologic hazards, including earthquakes, volcanoes, landslides, floods, subsidence. Emphasis on geological viewpoints concerning waste disposal, pollution, geothermal energy, fossil fuels, and mining. Geologic practices related to sound land management, conservation of resources, and protection of the environment. Field trips included.

GEOL 10 — Natural Disasters 3 Units  
Degree Applicable, CSU, UC  
54 hours lecture  
Surveys the hazards faced by humans from the natural environment. Analyzes the variety of hazards from a geological perspective. Studies the impact humans have on influencing or exacerbating natural disasters. Includes the role of government in responding to natural disasters. Field trips included.

GEOL 12A — Natural History of California 3 Units  
Degree Applicable, CSU  
(May be taken for option of letter grade or Pass/No Pass)  
36 hours lecture  
54 hours lab  
Field study of the natural history of the Sierra Nevada and adjacent regions. One 3-day and one 4-day weekend field trip will be required. Students may not receive credit for both BIOL 12A and GEOL 12A.

GEOL 12B — Natural History of California 3 Units  
Degree Applicable, CSU  
(May be taken for option of letter grade or Pass/No Pass)  
36 hours lecture  
54 hours lab  
Field study of the Peninsular Ranges, Transverse Ranges, Mojave and Colorado Deserts of southern California. Laboratory work is done during one 3-day and one 4-day weekend field trip. Students may not receive credit for both BIOL 12B and GEOL 12B.

GEOL 12C — Field Geology, Mojave Desert 3 Units  
Degree Applicable, CSU  
(May be taken for option of letter grade or Pass/No Pass)  
36 hours lecture  
54 hours lab  
Field studies of the geology of the Mojave Desert and surrounding areas. Overnight field trips required. Trips require significant hiking.

GEOL 13 — Evolution of the Earth 3 Units  
Degree Applicable, CSU, UC  
54 hours lecture  
Origin and evolution of the atmosphere, oceans and continents. Special concentration on the developing landforms through the study of plate tectonics.

GEOL 14 — Field Geology, Sierra Nevada 3 Units  
Degree Applicable, CSU  
(May be taken for option of letter grade or Pass/No Pass)  
36 hours lecture  
54 hours lab  
Field studies of the Sierra Nevada geologic provinces and the surrounding areas.

GEOL 15 — Field Geology, Mojave Desert 3 Units  
Degree Applicable, CSU  
(May be taken for option of letter grade or Pass/No Pass)  
36 hours lecture  
54 hours lab  
Field studies of the geology of the Mojave Desert and surrounding areas.

GEOL 16 — Field Geology, Coast Ranges 3 Units  
Degree Applicable, CSU  
(May be taken for option of letter grade or Pass/No Pass)  
36 hours lecture  
54 hours lab  
Field studies of the geology of the Coast Ranges and the San Andreas Fault System.

GEOL 17 — Field Geology, Death Valley 3 Units  
Degree Applicable, CSU  
(May be taken for option of letter grade or Pass/No Pass)  
36 hours lecture  
54 hours lab  
Field studies of the geology of Death Valley and the Basin and Range Province.

GEOL 18 — Field Geology Studies: Central California 3 Units  
Degree Applicable, CSU  
(May be taken for option of letter grade or Pass/No Pass)  
36 hours lecture  
54 hours lab  
Geologic field studies of the Southern California landscape to include the Transverse Ranges, Coast Ranges, San Andreas Fault, Great Valley, Sierra Nevada, Owens Valley, and the western Mojave Desert.

GEOL 19 — Field Geology Studies: Central California 3 Units  
Degree Applicable, CSU  
(May be taken for option of letter grade or Pass/No Pass)  
18 hours lecture  
54 hours lab  
Geologic field studies of the Southern California landscape to include the Transverse Ranges, Coast Ranges, San Andreas Fault, Great Valley, Sierra Nevada, Owens Valley, and the western Mojave Desert.

GEOL 24 — Geologic Field Studies: Central California 3 Units  
Degree Applicable, CSU  
(May be taken for option of letter grade or Pass/No Pass)  
36 hours lecture  
54 hours lab  
Geologic field studies of selected central California geological provinces and surrounding areas. Overnight field trips required. Trips require significant hiking.

GEOL 99 — Special Projects in Geology 2 Units  
Degree Applicable, CSU  
36 hours lecture  
In order to offer students the opportunity to explore their disciplines to greater depth, the various departments from time to time offer Special Projects courses. The content of each course and the methods of study vary from semester to semester, and depend on the particular project under consideration. Students must have an instructor's authorization before enrolling in this course. Students repeating this course will make individual contracts of a more advanced nature to ensure that proficiencies are enhanced.

GERMAN

GERM 1 — Elementary German 4 Units  
(CAN GERM02)  
Degree Applicable, CSU, UC  
72 hours lecture  
Prerequisite: Eligibility for ENGL 68  
For students with no previous German. Develops the ability to converse, read, and write in German. Emphasis on oral proficiency. Includes the study of essentials of pronunciation, vocabulary, idioms, and grammatical structures along with an introduction to Germanic culture.
### Section 10

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
<th>Degree Applicable</th>
<th>Prerequisites</th>
</tr>
</thead>
<tbody>
<tr>
<td>GERM 2</td>
<td>Continuing Elementary German</td>
<td>4 Units</td>
<td>Degree Applicable, CSU, UC</td>
<td>54 hours lecture</td>
</tr>
<tr>
<td></td>
<td></td>
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<td></td>
<td>GERM 1 or equivalent</td>
</tr>
<tr>
<td>GERM 3</td>
<td>Intermediate German</td>
<td>4 Units</td>
<td>Degree Applicable, CSU, UC</td>
<td>54 hours lecture</td>
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<tr>
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<td></td>
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<td></td>
<td>GERM 2 or equivalent</td>
</tr>
<tr>
<td>HIST 1</td>
<td>History of the United States</td>
<td>3 Units</td>
<td>Degree Applicable, CSU, UC</td>
<td>54 hours lecture</td>
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<tr>
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<td></td>
<td>Eligibility for ENGL 68</td>
</tr>
<tr>
<td>HIST 3</td>
<td>History of World Civilization</td>
<td>3 Units</td>
<td>Degree Applicable, CSU, UC</td>
<td>54 hours lecture</td>
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<tr>
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<td>Eligibility for ENGL 1A</td>
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<tr>
<td>HIST 4</td>
<td>History of World Civilization - Honors</td>
<td>3 Units</td>
<td>Degree Applicable, CSU, UC</td>
<td>54 hours lecture</td>
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<tr>
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<td>Acceptance into the Honors Program</td>
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<tr>
<td>HIST 7</td>
<td>History of the United States - Honors</td>
<td>3 Units</td>
<td>Degree Applicable, CSU, UC</td>
<td>54 hours lecture</td>
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<tr>
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<td>Eligibility for ENGL 1A</td>
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<tr>
<td>HIST 8</td>
<td>History of the United States</td>
<td>3 Units</td>
<td>Degree Applicable, CSU, UC</td>
<td>54 hours lecture</td>
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<tr>
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<td>Eligibility for ENGL 1A</td>
</tr>
<tr>
<td>HIST 10</td>
<td>History of Asia</td>
<td>3 Units</td>
<td>Degree Applicable, CSU, UC</td>
<td>54 hours lecture</td>
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<tr>
<td>HIST 11</td>
<td>History of Asia</td>
<td>3 Units</td>
<td>Degree Applicable, CSU, UC</td>
<td>54 hours lecture</td>
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<tr>
<td>HIST 16</td>
<td>The Wild West - A History, 1800-1890</td>
<td>3 Units</td>
<td>Degree Applicable, CSU, UC</td>
<td>54 hours lecture</td>
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<td>Eligibility for ENGL 68</td>
</tr>
</tbody>
</table>
Course Descriptions

HIST 19 — History of Mexico
3 Units
Degree Applicable, CSU, UC
54 hours lecture
The cultural and social history of the Mexican people from pre-Colombian civilization to modern Mexico.

HIST 30 — History of the African American
3 Units
Degree Applicable, CSU, UC
54 hours lecture
Prerequisite: Eligibility for ENGL 68
In the general framework of the U.S. historical process, surveys the history of African Americans from the African genesis to 1865, including historical processes and their impact on modern U.S. society. A critical analysis will be made of the contributions of African Americans to the historical development of the United States, and the transformations that have occurred as a result. Satisfies the requirement for a course in American institutions and ideals and the Constitution of the United States as required by Title 5 of the California Administrative Code.

HIST 31 — History of the African American
3 Units
Degree Applicable, CSU, UC
54 hours lecture
In the general framework of the U.S. historical process, surveys the history of African Americans from the Reconstruction period to the present, including historical processes and their impact on modern U.S. society. A critical analysis will be made of the contributions of African Americans to the historical development of the United States, and the transformation that have occurred as a result. Satisfies the requirement for a course in American institutions and ideals and the Constitution of the United States as required by Title 5 of the California Administrative Code.

HIST 36 — Women in American History - Beyond the Stereotypes
3 Units
Degree Applicable, CSU, UC
54 hours lecture
An introductory course placing women's experience within the context of the major themes of American history, addressing issues and debates related to gender construction and identity. Political, economic, and social currents as well as cross cultural dynamics are critically examined and analyzed as gender theory and practices in the context of ethnicity, class, and nation. This course satisfies the requirement for a course in American history including the study of American institutions and ideals, as required by Title 5 of the California Administrative Code.

HIST 39 — California History
3 Units
Degree Applicable, CSU, UC
54 hours lecture
Prerequisite: Eligibility for ENGL 68
The social, intellectual, economic, and political development of California and the Pacific Coast from earliest times to the present.

HIST 40 — History of the Mexican American
3 Units
Degree Applicable, CSU, UC
54 hours lecture
Prerequisite: Eligibility for ENGL 68
A survey of United States history from colonial times to the present with a special emphasis on the role of La Raza (Hispanics) in the development of the nation. Satisfies the requirement for a course in American History, including the study of American institutions and ideals as required by Title 5 of the California Administrative Code.

HIST 44 — History of Native Americans
3 Units
Degree Applicable, CSU
54 hours lecture
Advisory: Eligibility for ENGL 1A
Survey of United States history from colonial times to the present with a special emphasis on the role of Native Americans. Examines the role Euro-American social, political, and economic movements play in the Native American experience and the mutual relationships generated through these factors. Critically analyzes how the Native American narrative is woven into the fabric of U.S. history and is an essential component of the complete American story.

HIST 99 — Special Projects in History
2 Units
Degree Applicable, CSU
36 hours lecture
To offer selected students recognition for their academic interests and ability and the opportunity to explore their disciplines to a greater depth, the various departments from time to time offer Special Projects courses. The content of each course and the methods of study vary from semester to semester and depend on the particular project under consideration. Students repeating this course will make individual contracts of a more advanced nature with the instructor to ensure that proficiencies are enhanced.

HISTOTECHNOLOGY

HT 1 — Introduction to Histotechnology
1 Unit
Degree Applicable
18 hours lecture
Advisory: Eligibility for ENGL 68
An overview of the role of histotechnicians in preparation and analysis of tissues samples for diagnostic and research purposes. Introduction to Internet resources, support organizations and periodical references for histotechnicians, as well as regulatory agencies. Students will set up an educational plan and portfolio to be used throughout the remainder of the program.

HT 2 — Scientific Basics for Histologic Technicians
3 Units
Degree Applicable
54 hours lecture
Advisory: Eligibility for ENGL 68
Prerequisite: HT 12
Defines all aspects of general laboratory issues including general laboratory protocols (GLPs), 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, image analysis; cell structure, 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 12
Advisory: MICR 22
Practical applications and skill-building in tissue fixation, processing, embedding, sectioning, hematoxylin-eosin staining, and microorganism staining. Quality control as it relates to routine histotechnical techniques and equipment.

HT 14 — Advanced Histotechniques
4 Units
Degree Applicable
54 hours lecture
54 hours lab
Prerequisite: HT 12
Special stains for carbohydrates, amyloid, connective tissues, muscle and nervous tissues, including silver stains. Introduction to immunostains, in situ hybridization and microarraying techniques. Provides the opportunity to gain proficiency in skills acquired in HT 12, Beginning Histotechniques.

HT 16 — Hista/Immunohistochemistry
4 Units
Degree Applicable
54 hours lecture
54 hours lab
Prerequisite: HT 12
Fundamentals of enzyme and immunological reactions as they relate to tissue staining.
<table>
<thead>
<tr>
<th>COURSE DESCRIPTIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>HRM 51 — Introduction to Hospitality</strong></td>
</tr>
<tr>
<td>54 hours lecture</td>
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<tr>
<td>Prerequisite: Eligibility for ENGL 68</td>
</tr>
<tr>
<td>Brief review of the historical development of the hospitality industry; social and economic influences on the current leisure industry structures. Career opportunities at various levels in hotels, restaurants, food service institutions and private clubs/resorts. Education and experience requirements, personal qualifications, job responsibilities, job procurement and future opportunities.</td>
</tr>
</tbody>
</table>

| **HRM 52 — Food Safety and Sanitation** | 1.5 Units | Degree Applicable, CSU |
| 27 hours lecture |
| Prerequisite: Eligibility for ENGL 68 |
| Basic principles of sanitation and safety in the food service industry. Emphasis on the role of management in design, implementation and training to establish an effective Hazard Analysis Critical Control Point (HACCP) system. Students will have the opportunity to earn the National Restaurant Association’s ServSafe Certificate upon completion of the course. |

| **HRM 53 — Dining Room Service Management** | 3 Units | Degree Applicable, CSU |
| 54 hours lecture |
| Advisory: ENGL 68 |
| Skills and knowledge needed for all aspects of dining room service. Exploration of the five different service styles and their relationship to various environments. Table setting styles, buffet set-ups, wine and beverage service, and service as a sales tool are covered. Safety of both customer and staff are discussed. |

| **HRM 54 — Basic Cooking Techniques** | 3 Units | Degree Applicable, CSU |
| 36 hours lecture |
| 54 hours lab |
| Advisory: HRM 52 |
| Basic principles of preparing foods for commercial operations; the use and identification of commercial tools and equipment; extending recipes; and choosing the proper food grade; evaluation of food products, and equipment usage. |

| **HRM 56 — Management of Hospitality Personnel and Operations** | 3 Units | Degree Applicable, CSU |
| 54 hours lecture |
| Management skills course for students pursuing a career in supervision within the restaurant/hospitality industry. Application of basic management concepts and techniques necessary to achieve objectives and meet goals. |

| **HRM 57 — Restaurant Cost Control** | 3 Units | Degree Applicable, CSU |
| 54 hours lecture |
| Prerequisite: HRM 51 (May have been taken previously) |
| Methods for controlling resources within the hospitality operation to maximize profits without compromising products. Discusses controls in front of the house, back of the house, purchasing and receiving. |

| **HRM 59 — Catering** | 3 Units | Degree Applicable, CSU |
| 54 hours lecture |
| Comprehensive exploration of the catering business with in-depth study of organizing and creating both on-premise and off-premise events. Marketing and working with clients to combine menu with price. Contracting outside vendors, problem solving and avoiding common problems before they occur. |

| **HRM 60 — Restaurant Purchasing** | 3 Units | Degree Applicable, CSU |
| 54 hours lecture |
| Advisory: HRM 51 |
| Basic principles of purchasing for the food service industry. Ordering, receiving, storage, characteristics of products and grade selection for different situations are emphasized. Choosing the best supplier, negotiating the best terms and writing product specifications are covered. |

| **HRM 61 — Menu Planning** | 3 Units | Degree Applicable, CSU |
| 54 hours lecture |
| Advisory: HRM 51 |
| Menu development for all facets of the food service industry including retail and contract operations; emphasis on the economics of the menu and the demographics of the area. Analysis of menus with regard to limitations of the facility and staff, pricing and menu design relative to the economy and culture of the target area. Specialty menus such as ethnic, fast food, catering and various contract situations are included. |
### Course Descriptions

#### HUMANITIES

**HUMA 1 — The Humanities**  3 Units  Degree Applicable, CSU, UC  54 hours lecture  
Prerequisite: Eligibility for ENGL 68  
An interdisciplinary study of the artistic, musical, literary and philosophical accomplishments and achievements of women and men in western society from the ancient Middle East to the present. Emphasizes creating an awareness of human expression as it occurs in a historical and philosophical context.

#### INSPECTION AND ESTIMATING, BUILDING

**INSP 17 — Legal Aspects of Construction**  3 Units  Degree Applicable, CSU  54 hours lecture  
(May be taken for option of letter grade or Pass/No Pass)  
Advisory: INSP 70 taken prior or concurrently or equivalent experience  
Fundamentals of the legal aspects of the construction industry involving homeowner, contractor and builder/developer. Includes codes, licensing, bonds, and lien laws.

**INSP 67 — Reading Construction Drawings**  3 Units  Degree Applicable  54 hours lecture  
Fundamentals of reading construction drawings as related to architecture, construction, interior design, and related fields.

**INSP 70 — Elements of Construction**  3 Units  Degree Applicable, CSU  54 hours lecture  
Fundamentals of construction processes, terminology and procedures. Provides an overview of the construction industry to those who may have an interest in the construction industry and related fields.

**INSP 71 — Construction Estimating**  3 Units  Degree Applicable, CSU  54 hours lecture  
Basics of bidding procedures and interrelationship of documents and estimating. Detailed calculation of cost based on the amount of required building materials using actual working drawings, estimating forms, and cost data courses.

**INSP 87 — Fundamentals of Construction Inspection**  3 Units  Degree Applicable  54 hours lecture  
Advisory: Completion of a curriculum in building construction or equivalent experience  
Construction inspection of light frame wood construction and steel structures. Topics include vertical and horizontal loads, stress analysis, framing and structural standards of lumber and steel, metallurgy and welding.

#### INTERIOR DESIGN

**ID 100 — Fundamentals of Interior Design**  3 Units  Degree Applicable, CSU  54 hours lecture  
Application of design principles and elements in planning of total interior environments that meet individual, functional, legal and environmental needs. Selection of all materials and products used in interior environments will be emphasized for the functional aesthetic quality. (Recommended concurrent enrollment in ID 105)

**ID 105 — Interior Design Studio I**  2 Units  Degree Applicable, CSU  36 hours lecture  
18 hours lecture  
54 hours lab  
Corequisite: ID 100 (may have been taken previously)  
Studio course designed to apply concepts and theories presented in the lecture course, ID 100. It is recommended that this course be taken concurrently with the lecture class. Emphasis is placed on design process in developing solutions for design projects.

**ID 120 — Interior Design Careers**  2 Units  Degree Applicable, CSU  54 hours lecture  
Advisory: ID 100, ARCH 11 or equivalent experience  
The application of programming theory and techniques in residential and commercial space planning. Skills in drafting and presentation techniques are emphasized in the studio.

**ID 130 — Applied Color and Design Theory**  4 Units  Degree Applicable, CSU  54 hours lecture  
54 hours lab  
Advisory: ID 100, ARCH 11 or equivalent experience  
The fundamentals of lighting, design, theory and application including the history and vocabulary of lighting; how light affects color and vision, incandescent and fluorescent lamps, lighting techniques for interior designers, codes, and energy efficient lighting practices.

**ID 150 — Interior Materials and Products**  4 Units  Degree Applicable, CSU  72 hours lecture  
Advisory: ID 100  
Analysis, application, and evaluation of products and materials used in Interior Design. Includes interior textiles, furnishings and finish materials and products.

**ID 170 — Space Planning**  3 Units  Degree Applicable, CSU  36 hours lecture  
54 hours lab  
Advisory: ID 100 or ID 130 or ARCH 11 or ARCH 21  
The application of programming theory and techniques in residential and commercial space planning. Skills in drafting and presentation techniques are emphasized in the studio.

**ID 180 — History of Interior Architecture and Furnishings I**  3 Units  Degree Applicable, CSU  54 hours lecture  
Advisory: ID 180 and Eligibility for ENGL 68  
The historical relationship between the decorative arts, period furnishing and interior architecture is illustrated in this overview of design heritage from antiquity through the 19th Century in France. Emphasis is placed on style development as it relates to social, economic and political influences.

**ID 190 — History of Interior Architecture and Furnishings II**  3 Units  Degree Applicable, CSU  54 hours lecture  
Advisory: ID 180 and Eligibility for ENGL 68  
The historical relationship between the decorative arts, period furnishing and interior architecture is illustrated in this overview of design heritage. This course begins with Sixteenth Century England and America and analyzes the influences and changes in design to the present. Emphasis is placed on style development as it relates to social, economic and political forces.

**ID 210 — Fundamentals of Lighting**  3 Units  Degree Applicable, CSU  54 hours lecture  
Advisory: ID 100, ARCH 11 or equivalent experience  
The fundamentals of lighting, design, theory and application including the history and vocabulary of lighting; how light affects color and vision, incandescent and fluorescent lamps, lighting techniques for interior designers, codes, and energy efficient lighting practices.

**ID 215 — Interior Design Studio II**  2 Units  Degree Applicable, CSU  18 hours lecture  
54 hours lab  
Advisory: ID 130 and ID 170  
Develop, analyze and apply design concepts to interior environments. Universal design, “green” design, space planning, lighting systems, interior components, architectural elements and specification writing will be integrated into research projects emphasizing problem solving approach.
### Course Descriptions

<table>
<thead>
<tr>
<th>ID</th>
<th>Course Title</th>
<th>Units</th>
<th>Degree Applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>230</td>
<td>Business and Professional Practice</td>
<td>3</td>
<td></td>
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</tbody>
</table>

#### ID 240A — Interior Design Internship Seminar 1 Unit

(15 hours lecture)
(May be taken two times for credit)
16 hours lab
Corequisite: ID 240A
Supervised internship related to classroom-based learning at a work site related to Interior Design. A minimum of 75 paid or 60 non-paid clock hours per semester of supervised work is required for each unit of credit. It is recommended that the hours per week be equally distributed throughout the semester. Internship placement is not guaranteed, but assistance is provided by Interior Design faculty. Students who repeat this course will improve skills through further practice.

<table>
<thead>
<tr>
<th>ID</th>
<th>Course Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>250</td>
<td>Codes and Specifications for Interior Design</td>
<td>2</td>
<td>Degree Applicable, CSU</td>
</tr>
</tbody>
</table>

#### ID 260 — Rendering and Rapid Visualization 2 Units

18 hours lecture
54 hours lab
Application of the methods, techniques and tools used in illustrating interior spaces and products with an emphasis on rapid production.

### ITALIAN

#### ITAL 1 — Elementary Italian 4 Units

(CAN ITAL02) Degree Applicable, CSU, UC

72 hours lecture
Intended for students without previous exposure to Italian. Includes the study of essentials of pronunciation, vocabulary, idioms, and grammatical structures along with an introduction to Italian culture.

#### ITAL 2 — Continuing Elementary Italian 4 Units

(CAN ITAL04) Degree Applicable, CSU, UC

72 hours lecture
Prerequisite: ITAL 1 or equivalent
Further development of conversational, reading and writing skills in Italian with special emphasis on verbs, grammar and extension of vocabulary. Further study of Italian culture.

#### ITAL 3 — Intermediate Italian 4 Units

(CAN ITAL08) Degree Applicable, CSU, UC

72 hours lecture
Prerequisite: ITAL 2 or equivalent
Development of intermediate Italian language skills and their use as tools in exploring Italian civilization. Further study and review of grammar, exercises in word building, derivation and the extension of the active and recognition vocabularies. Extensive exposure to Italian culture, such as film, music and history.

#### ITAL 4 — Continuing Intermediate Italian 4 Units

(CAN ITAL10) Degree Applicable, CSU, UC

72 hours lecture
Prerequisite: ITAL 3 or equivalent
Further practice in speaking and writing of intermediate Italian. Extensive practice in speaking and writing of intermediate Italian. Extensive reading in Italian. Extensive exposure to cultural elements from Italy such as art, music, film and history.

#### ITAL 5 — Advanced Italian 4 Units

(CAN ITAL09) Degree Applicable, CSU, UC

72 hours lecture
Prerequisite: ITAL 4 or equivalent
Emphasis is placed on increased facility to read and write advanced Italian. Cultural insights are developed through the study of various Italian literary types.

#### ITAL 6 — Continuing Advanced Italian 4 Units

(CAN ITAL10) Degree Applicable, CSU, UC

72 hours lecture
Prerequisite: ITAL 5 or equivalent
Emphasis is placed on increased facility to read and write advanced Italian. Cultural insights are developed through the study of various Italian literary types.

#### ITAL 52 — Conversational Italian 3 Units

Degree Applicable

74 hours lecture
Prerequisite: ITAL 1 or equivalent
Development of elementary Italian conversational skills. Emphasis on collaborative activities and practical use of the language. Extensive exposure to Italian culture. Grammar is presented in context.
COURSE DESCRIPTIONS

ITAL 53 — Continuing Conversational Italian  3 Units
Degree Applicable, CSU, UC
(May be taken for option of letter grade or Pass/No Pass)
54 hours lecture
Prerequisite: ITAL 4 or equivalent
Development of conversational skills in Italian. Emphasis on
extravagance and practical use of the language. Extensive
exposure to Italian culture. Grammar is presented in context.

ITAL 54 — Advanced Conversational Italian  3 Units
Degree Applicable, CSU, UC
(May be taken for option of letter grade or Pass/No Pass)
54 hours lecture
Prerequisite: ITAL 3 or ITAL 53 or equivalent
Development of advanced conversational skills in Italian. Emphasis on
extravagance and practical use of the language. Extensive
exposure to Italian culture. Grammar is presented in context.

ITAL 60 — Italian Culture Through Cinema  3 Units
Degree Applicable, CSU, UC
(May be taken for option of letter grade or Pass/No Pass)
54 hours lecture
Italian culture through cinema from 1900 through analysis of the
aesthetic, literary, artistic and philosophical movements in Italy as
reflected in the works of the Italian film makers and writers. Lecture
and class discussion to be conducted in English; film presentation with
English subtitles.

JAPANESE

JAPN 1 — Elementary Japanese  4 Units
Degree Applicable, CSU, UC
CAN JAPN02
72 hours lecture
Prerequisite: JAPN 1 or equivalent
Intended for students without previous exposure to Japanese. Begins to
develop the ability to converse, read, and write in Japanese. Includes the
essentials of pronunciation, vocabulary, idioms, and
grammatical structures. Introduction to Japanese culture.

JAPN 2 — Continuing Elementary Japanese  4 Units
Degree Applicable, CSU, UC
CAN JAPN04
72 hours lecture
Prerequisite: JAPN 1 or equivalent
Further development of conversational, reading and writing skills in
Japanese with special emphasis on verbs, grammar, and extension of
vocabulary. Includes a discussion of Japanese culture.

JAPN 3 — Intermediate Japanese  4 Units
Degree Applicable, CSU, UC
(CAN JAPN08)
72 hours lecture
Prerequisite: JAPN 2 or equivalent
Continued development of Kanji (50 or more characters) with 60
additional readings. Continued development of writing ability
emphasizing development of thought through Kanji, Hiragana and
Katakana. Additional development of cultural application of Japanese.

JAPN 4 — Continuing Intermediate Japanese  4 Units
Degree Applicable, CSU, UC
(CAN JAPN10)
72 hours lecture
Prerequisite: JAPN 3 or equivalent
Further practice in listening comprehension, communicative proficiency,
writing and reading in Japanese. Advanced 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
Advisory: Eligibility for ENGL 68
Advanced Japanese communication skills with emphasis on
conversational skills for daily and social settings in Japanese culture.
Advanced study of grammar, vocabulary, Kanji characters, listening,
speaking, reading, and writing. Extensive exposure to cultural elements
from Japan such as art, music, film, and history.

JAPN 53 — Conversational Japanese  3 Units
Degree Applicable, CSU, UC
(May be taken for option of letter grade or Pass/No Pass)
54 hours lecture
Prerequisite: JAPN 2 or equivalent
Development of intermediate Japanese conversational skills. Emphasis on
extravagance and practical use of the language. Extensive
exposure to Japanese culture. Grammar is presented in context.

JOUR 100 — Mass Media and Society  3 Units
Degree Applicable, CSU, UC
(CAN JOUR04)
54 hours lecture
Prerequisite: ENGL 1A
Survey of the mass media and the interrelationships of media with
society, including history, structure, and trends. Additionally, the
following topics will be covered as they pertain to the mass media:
economics, technology, law and ethics and such social issues as gender
and cultural diversity.

JOUR 101 — Beginning News Writing  3 Units
Degree Applicable, CSU, UC
(CAN JOUR02)
54 hours lecture
Prerequisite: ENGL 1A
Evaluating, gathering, and writing news in accepted journalistic style
under newsroom conditions. Includes role of the reporter and the legal
and ethical issues relating to reporting. The student will have writing and
reporting experiences, including personal interviews, speech,
meeting and other event coverage, deadline writing, and use of AP
style.

JOUR 102 — Intermediate Newswriting  3 Units
Degree Applicable, CSU, UC
(May be taken for option of letter grade or Pass/No Pass)
54 hours lecture
Prerequisite: JOUR 101 or JOUR 1A
Development of intermediate news reporting techniques combined with
the composition of complex journalistic writing forms.

JOUR 103 — Working on the Newspaper  3 Units
Degree Applicable
(May be taken four times for credit)
(May be taken for option of letter grade or Pass/No Pass)
18 hours lecture
108 hours lab
Practical experience preparing the college newspaper. Duties may
include reporting, story writing, photography, layout and design and
copy editing. Students who repeat this class will improve skills through
further instruction and practice.

JOUR 104 — Newspaper Layout and Design  3 Units
Degree Applicable
(May be taken four times for credit)
(May be taken for option of letter grade or Pass/No Pass)
36 hours lecture
54 hours lab
An introduction to newspaper design using desktop publishing
techniques. Includes hands-on experience publishing the student
newspaper. Students who repeat this course will improve skills through
further instruction and practice.

JOUR 105 — Editor Training  1 Unit
Degree Applicable
(May be taken four times for credit)
(May be taken for option of letter grade or Pass/No Pass)
54 hours lab
Advisory: JOUR 101 or JOUR 1A
Stresses leadership skills in a journalistic setting using the student
newspaper as a practical laboratory. Designed for students selected to
serve as editors or managers of the paper. Students who repeat this
course will improve skills through further instruction and practice.
JOUR 106 — Introduction to Visual Journalism 3 Units
Degree Applicable, CSU
(May be taken two times for credit)
(May be taken for option of letter grade or Pass/No Pass)
54 hours lecture
36 hours lab
Prerequisite: COMP 60 (may have been taken previously)
Photojournalism assignments using still, digital, and video cameras for
offset printing (newspaper, magazine, etc.) and digital Web
presentations. Basics of photojournalism, digital camera operation,
shooting techniques, photo-editing software, cutline writing, video
and audio production and editing, and Web homepage design production.
Students who repeat this course will improve skills through further
instruction and practice.

JOUR 107 — Race, Culture, Sex, and Mass Media Images 3 Units
Degree Applicable, CSU
(May be taken for option of letter grade or Pass/No Pass)
54 hours lecture
Advisory: ENGL 1A
Studies the role mass media plays in the social, political, and economic
integration of minorities, cultures, women, and gays and lesbians into
American society. Examines ways that mass media impacts public
attitudes and behaviors.

JOUR 108 — Writing for Public Relations 3 Units
Degree Applicable, CSU
(May be taken for option of letter grade or Pass/No Pass)
54 hours lecture
Prerequisite: JOUR 101 or JOUR 1A
An introduction to public relations writing including news releases, fact
sheets, feature stories, institutional publications, and newsletters. The
relationships between public relations, the mass media, and society will be
explored.

JOUR 109 — Public Relations Internship 3 Units
Degree Applicable
(May be taken two times for credit)
(May be taken for option of letter grade or Pass/No Pass)
225 hours lab
Advisory: JOUR 108 or JOUR 8
Field work in public relations. A minimum of 75 paid or 60 non-paid
clock hours per semester of supervised work is required for each unit of
credit. It is recommended that the hours per week be equally
distributed throughout the semester. Students who repeat this course
will improve skills through further instruction and practice.

JOUR 110 — Magazine Writing and Production 3 Units
Degree Applicable
(May be taken for option of letter grade or Pass/No Pass)
36 hours lecture
54 hours lab
Prerequisite: JOUR 101 or JOUR 1A
Production of a student-run magazine in a professional setting.
Activities may include fiction and nonfiction writing, editing, ethics,
interviewing, photography, art and layout. Overview of the magazine
industry and markets explored.

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 four times for credit)
(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.

LATIN

LATIN 1 — Elementary Latin 4 Units
Degree Applicable, CSU
(May be taken for option of letter grade or Pass/No Pass)
72 hours lecture
Prerequisite: Eligibility for READ 90 or eligibility for AMLA 33R
This course is designed for students with little or no prior experience in
Latin. Emphasizes the ability to read basic Latin as it was written during the
early, classical, and post-classical periods. Includes the study of
vocabulary, grammar, Roman culture, and the history of the Latin
language.

LEAD 55 — Exploring Leadership 3 Units
Degree Applicable, CSU
54 hours lecture
Designed to introduce students to the fundamental elements of
leadership. Explores leadership theories and models, values and beliefs.
Develops a personal philosophy of leadership that includes an
understanding of self, others and community. Prepares students for
leadership roles in college and community settings.

LEARNING ASSISTANCE SERVICES

LEARN 48 — Basic Math Skills Review 3 Units
Not Degree Applicable
(May be taken for Pass/No Pass only)
54 hours lecture
24 hours lab
Prerequisite: LATN 1
Essential math fundamentals: multiplication tables, adding, subtracting,
multiplying and dividing whole numbers and fractions. Emphasis on
math learning strategies such as organization and math anxiety.
Successful completers of this course are eligible for LERN 49.

LEARN 49 — Math Skills Review 3 Units
Not Degree Applicable
(May be taken for Pass/No Pass only)
54 hours lecture
24 hours lab
Optional math fundamentals: multiplication tables, adding, subtracting,
multiplying and dividing whole numbers and fractions. Emphasis on
math learning strategies such as organization and math anxiety.
Successful completers of this course are eligible for LERN 61.

LEARN 61 — Skills Development Laboratory 1 Unit
Not Degree Applicable
(May be taken for Pass/No Pass only)
54 hours lab
Offers individualized material in the following subjects: reading
comprehension, reading acceleration, vocabulary, spelling, elementary
math, algebra review, English grammar, study techniques (note-taking,
test-preparation, test-taking). Students may register for one unit
through the first half of the term. One unit requires a total expenditure
of 48 hours in class.
Course Descriptions

LERN 62 — Skills Development Laboratory 2 Units
Not Degree Applicable
(May be taken two times for credit)
(May be taken for Pass/No Pass only)
108 hours lab
Offers individualized material in the following subjects: reading comprehension, reading acceleration, vocabulary, spelling, elementary math, algebra review, English grammar, study techniques (note-taking, test-preparation, test-taking). Students may register for two units through the first half of the term. Two units require a total expenditure of 96 hours in class. Students who repeat will achieve further improvement in the skills previously tested or work on the development of other skills.

LERN 81 — Improving Writing Skills 3 Units
Not Degree Applicable
(May be taken for Pass/No Pass only)
54 hours lecture
24 hours lab
Offers assistance to students who wish to improve prewriting, writing, editing, and revising skills. Provides instruction in content and structure of sentences, paragraphs, and essay; emphasizes development in writing through the integration of grammar and critical thinking.

LIBRARY AND INSTRUCTIONAL MEDIA

LIBR 1 — Information Resources and Research Methods 3 Units
Not Degree Applicable, CSU, UC
54 hours lecture
Advisory: Eligibility for ENGL 68
Research methods that provide lifelong information competency necessary for independent research and critical thinking. Activities include finding, evaluating and documenting information using traditional and electronic resources, including the Internet.

LIBR 1A — Introduction to Library Research 1 Unit
Not Degree Applicable, CSU
18 hours lecture
Advisory: Eligibility for ENGL 68
Basic research skills for lifelong information competency necessary for independent research and critical thinking. Topics include search strategies, citation, and use of library resources.

LIBR 1B — Using Electronic Resources 1 Unit
Not Degree Applicable, CSU
18 hours lecture
Advisory: Eligibility for ENGL 68
Research skills using electronic resources for lifelong information competency. Topics include databases, electronic books, search strategies, citation, copyright, and plagiarism.

LITERATURE

LIT 1 — Early American Literature 3 Units
(CAN ENGL14) Degree Applicable, CSU, UC
54 hours lecture
Prerequisite: ENGL 1A
American literature of the Seventeenth, Eighteenth, and Nineteenth Centuries. Emphasizes writers who created an American literary identity and shaped America's cultural mythology.

LIT 2 — Modern American Literature 3 Units
(CAN ENGL16) Degree Applicable, CSU, UC
54 hours lecture
Prerequisite: ENGL 1A
Emphasizes characteristic 20th century concerns such as identity and cultural diversity, the American Dream, the effects of industrial and technological development, human isolation and alienation, and examines the impact of these concerns on American literary form and on America's cultural mythology.

LIT 3 — Multicultural American Literature 3 Units
Degree Applicable, CSU, UC
54 hours lecture
Examines the representative contributions of three or four diverse groups to American literature and culture. Covers a wide spectrum of historical periods and literary genres, the course will focus on issues of ethnic identity, assimilation, acculturation, cultural pluralism, and family and gender roles in order to heighten awareness of diversity in America. Representative literature groups may include African American, Hispanic American, Asian American, Gay and Lesbian American, disability groups and religious groups.

LIT 6A — Survey of English Literature 3 Units
(CAN ENGL10) Degree Applicable, CSU, UC
54 hours lecture
Prerequisite: ENGL 1A
An introductory survey course of European literature (17th to the 20th centuries) that explores the significant and representative literary works of the major authors of these periods. Emphasis on the aesthetic, social and philosophical values and ideas that influenced these authors and the development of 20th century thought.

LIT 10 — Survey of Shakespeare 3 Units
Degree Applicable, CSU, UC
54 hours lecture
Prerequisite: ENGL 1A
A survey of Shakespeare's histories, tragedies, comedies, and selected sonnets, with their historical and literary contexts, emphasizing their relevance to contemporary culture and values.

LIT 11A — World Literature 3 Units
Degree Applicable, CSU, UC
54 hours lecture
Prerequisite: ENGL 1A
An introductory survey course of European literature (17th to the 20th centuries) that explores the significant and representative literary works of the major authors of these periods. Emphasis on the aesthetic, social and philosophical values and ideas that influenced these authors and the development of 20th century thought.

LIT 11B — World Literature 3 Units
Degree Applicable, CSU, UC
54 hours lecture
Prerequisite: ENGL 1A
An introductory survey course of European literature (17th to the 20th centuries) that explores the significant and representative literary works of the major authors of these periods. Emphasis on the aesthetic, social and philosophical values and ideas that influenced these authors and the development of 20th century thought.

LIT 14 — Introduction to Modern Poetry 3 Units
Degree Applicable, CSU, UC
54 hours lecture
Prerequisite: ENGL 1A
Examines the significant poetry of England and America in the 20th century, with the major emphasis on contemporary poems.

LIT 15 — Introduction to Cinema 3 Units
Degree Applicable, CSU, UC
54 hours lecture
Prerequisite: ENGL 1A
Examines the broad range of human experience inherent in the study of film as art. Using a number of films drawn from various genres, examines film from historical, social, technological and aesthetic perspectives.
LIT 20 — African American Literature  3 Units  
Degree Applicable, CSU, UC  
(May be taken for option of letter grade or Pass/No Pass)  
54 hours lecture  
Prerequisite: ENGL 1A  
Surveys Eighteenth through Twenty-first Century writings of African Americans. Emphasizes the oral tradition, development of protest literature and major modern and contemporary writers such as Wright, Ellison, Baldwin, Walker, and Morrison.

LIT 33 — Images of Women in Literature  3 Units  
Degree Applicable, CSU, UC  
54 hours lecture  
Prerequisite: ENGL 1A  
Survey of selected pieces of literature, poetry, short stories and novels which reflect significant ideas and attitudes about women. The Women's Rights Movement will also be explored through an intensive examination of the changing images of women in society as portrayed by both male and female authors. Some contemporary critical material will be used.

LIT 40 — Children’s Literature  3 Units  
Degree Applicable, CSU, UC  
(May be taken for option of letter grade or Pass/No Pass)  
54 hours lecture  
Prerequisite: ENGL 1A  
Designed to give the student a knowledge and an appreciation of children's books, both fiction and non-fiction, from around the world. Special emphasis is given to analysis and interpretation of thematic and literary elements, suitability for age group, quality of writing and illustration, award-winning books, and issues related to cultural patterns, bias and persuasiveness.

LIT 46 — The Bible as Literature: Old Testament  3 Units  
Degree Applicable, CSU, UC  
54 hours lecture  
Prerequisite: ENGL 1A  
Considers the Bible as a collection of literary texts and applies the principles of literary historical analysis to selected books of the Old Testament.

LIT 47 — The Bible as Literature: New Testament  3 Units  
Degree Applicable, CSU, UC  
54 hours lecture  
Prerequisite: ENGL 1A  
Considers the Bible as a collection of literary texts and applies the principles of literary and historical analysis to selected books of the New Testament.

MANUFACTURING TECHNOLOGY

MFG 11 — Manufacturing Processes I  2 Units  
Degree Applicable, CSU  
18 hours lecture  
54 hours lab  

MFG 12 — Manufacturing Processes II  2 Units  
Degree Applicable, CSU  
18 hours lecture  
54 hours lab  
Advisor: MFG 11  
The study of manufacturing equipment and manufacturing processes. Theory and practice in milling operations, tooling setup, metallurgy, heat treatment, precision grinding, and basic tool design.

MFG 15 — AutoCAD 2D  2 Units  
Degree Applicable  
18 hours lecture  
54 hours lab  
Development of two dimensional AutoCAD mechanical screen drawings, as related to Computer Integrated Manufacturing (CIM), and Computer Aided Machines (CAM). Completed drawings will be translated into DXF and/or IGES files and then transferred to various CAD/CAM systems.

MFG 17 — 3-D CAD Mechanical Modeling  2 Units  
Degree Applicable  
18 hours lecture  
54 hours lab  
Advisor: MFG 15  
Development of three dimensional mechanical models using AutoCAD. Analysis and manipulation of mechanical solid models and industrial primitives as related to their interaction with Computer Aided Machines (CAM) and Computer Integrated Manufacturing (CIM) systems.

MFG 19 — Parametric Solid Modeling for Manufacturing  2 Units  
Degree Applicable  
18 hours lecture  
54 hours lab  
Advisor: MFG 17  
Development of feature-based solid modeling on a computer using current software used in industry. Transfer of solid model to a CAM system for CNC code production. Includes production of a manufactured part using CNC mill.

MFG 25 — Advanced Parametric Solid Modeling for Manufacturing  2 Units  
Degree Applicable  
18 hours lecture  
54 hours lab  
Advisor: MFG 19 or MFG 27 taken previously  
Advanced instruction in concepts, practice, and development of feature-based solid modeling using software currently used in the manufacturing industry. Advanced features of solid modeling global variables, 3-D helical paths generation, surface cut, table-driven parts, and advanced sheet metal, and animation.

MFG 27 — Autodesk Inventor  2 Units  
Degree Applicable  
18 hours lecture  
54 hours lab  
Advisor: MFG 19  
Advanced concepts, practice, and development of feature-based solid modeling using AutoDesk Inventor. Solid modeling parts creation using sketched, placed, and work features. Assembly techniques, working drawings, and the transfer of a solid model to a CAM system.

MFG 38 — MasterCAM I  2 Units  
Degree Applicable, CSU  
18 hours lecture  
54 hours lab  
Advisor: MFG 27  
Use MasterCAM software to create wire-frame part geometry, add tool paths and create CNC code for CNC mills and CNC lathes.
### Course Descriptions

**MFG 38B — Advanced MasterCAM**  
2 Units  
Degree Applicable, CSU  
18 hours lecture  
54 hours lab  
Advisory: MFG 38  
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.

**MFG 39 — SurfCAM I**  
2 Units  
Degree Applicable, CSU  
18 hours lecture  
54 hours lab  
Advisory: MFG 11, MFG 85  
SurfCAM software used to create part geometry from project drawings for two-axis milling and turning parts. Tool paths will be added and files completed and post-processed. Files will be downloaded to CNC machines. Students will be required to set up all cutting tools and machine the part.

**MFG 39B — SurfCAM II**  
2 Units  
Degree Applicable, CSU  
18 hours lecture  
54 hours lab  
Advisory: MFG 39  
Use SurfCAM software to create part geometry for three-axis milling and lathe parts from project drawings and CAD files. Tool paths will be added and the completed file will be post-processed and downloaded to CNC machine. Students will set up the required cutting tools and machine the part.

**MFG 58 — Blueprint Reading**  
2 Units  
Degree Applicable  
36 hours lecture  
Advisory: MFG 70  
Blueprint reading as a means of interpreting and visualizing drawings used in manufacturing. Includes the basic print form, title block, notes, materials, machining specifications, application of principles to CNC, welding, and sheet metal.

**MFG 70 — Technical Math - Manufacturing**  
2 Units  
Degree Applicable, CSU  
36 hours lecture  
Applications of mathematical principles in manufacturing. Includes arithmetic calculations, measurement, use of formulas, geometry, and trigonometry.

**MFG 74 — Manufacturing Technology Work Experience**  
1 Unit  
Not Degree Applicable  
(May be taken for Pass/No Pass only)  
75 hours lab  
Prerequisite: Completion of MFG 11, 12, 58, 70, and 85. Provides actual on-the-job experience in manufacturing at an approved work site, which is related to classroom instruction. A minimum of five hours per week of supervised work (60 non-paid clock hours or 75 paid clock hours per semester) is required for each one unit of credit. Students who repeat this course will improve skills through further instruction and practice.

**MFG 85 — Manual CNC Operation**  
2 Units  
Degree Applicable, CSU  
18 hours lecture  
54 hours lab  
Theory and practice in manually developing CNC programs. Methods of transmitting data to CNC machines and physical setup and operation of CNC equipment.

**MFG 99 — Special Projects in Machining**  
.5 to 2 Units  
Not Degree Applicable  
(May be taken four times for credit)  
4.5 to 18 hours lecture  
12 to 48 hours lab  
Provides students with the opportunity to develop skills in specific machining areas. Content of each course and the methods of study will depend on the specific machining skills selected.

### MATHEMATICS

**MATH 10 — Math Enhancement**  
0 Unit  
Not Degree Applicable  
(May be taken four times for credit)  
18 hours activity  
Linked with a corresponding math lecture section, this course provides hands-on activities and mathematical applications designed to enhance student success and abilities in the linked course. Supplemental learning activities such as computer projects, drill and practice, study skills development, group work and student presentations.

**MATH 50 — Pre-Algebra**  
3 Units  
Not Degree Applicable  
54 hours lecture  
Prerequisite: Credit in LERN 49 or qualifying score on current department placement test  
Fundamental principles of mathematics designed to ease the transition from arithmetic to algebra. Concepts, computational skills, thinking skills and problem-solving skills are balanced to build proficiency and mastery.

**MATH 11A — Elementary Algebra — First Half**  
3 Units  
Not Degree Applicable  
54 hours lecture  
Prerequisite: MATH 50 or qualifying score on current department placement test  
Basic algebra, equivalent to first year high school algebra. Includes operations with signed numbers and algebraic expressions, linear equations and inequalities; polynomial operations and factoring; rational expressions and equations; Cartesian Coordinate System, slope/graphing/equations of lines, systems of linear equations, ratio/proportion, formulas and variation, applications, radicals and exponents, quadratic equations.

**MATH 51B — Elementary Algebra — Second Half**  
3 Units  
Not Degree Applicable  
54 hours lecture  
Prerequisite: MATH 51A  
Contains the second half of elementary algebra. Includes: Cartesian Coordinate System, slope/graphing/equations of lines, solving systems of linear equations, algebraic operations with radicals; solving equations with radicals, solving second degree equations using methods of completing the square and the quadratic formula. Students must complete both MATH 51A and MATH 51B to have taken the equivalent of Elementary Algebra (MATH 51).

**MATH 61 — Plane Geometry**  
3 Units  
Degree Applicable  
54 hours lecture  
Prerequisite: MATH 51 or MATH 51B or MATH 52 or qualifying score on current department placement test  
Points, lines, polygons and circles; their relationships to each other on plane surfaces; congruence, similarity and area. Introduction to inductive, deductive and indirect reasoning. The formal proof is introduced and practiced throughout the course. Stress is placed on accuracy of statement as a background for analytical and scientific reasoning.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Credit Applicability</th>
<th>Prerequisites</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 71 — I</td>
<td>Intermediate Algebra</td>
<td>5</td>
<td>Degree Applicable</td>
<td>90 hours lecture. Prerequisite: MATH 51 or MATH 51B or qualifying score on current department placement test. Reviews and extends concepts from elementary algebra, and introduces new content to prepare students for a variety of subsequent mathematics courses. Polynomial, rational, radical, exponential and logarithmic expressions are simplified, equations solved and functions graphed and studied; linear and nonlinear systems of equations and inequalities; conic sections; sequence, series and the binomial theorem. Application problems appear throughout the course.</td>
</tr>
<tr>
<td>MATH 71A — I</td>
<td>Intermediate Algebra - First Half</td>
<td>3</td>
<td>Degree Applicable</td>
<td>54 hours lecture. Prerequisite: MATH 51 or MATH 51B or qualifying score on current department placement test. Algebra of functions, polynomials, and rational expressions; functions and their graphs; systems of equations with two or three variables; absolute value and compound inequalities. Covers some MATH 71 topics at a slower pace. A student must complete both MATH 71A and 71B to have taken the equivalent of MATH 71, Intermediate Algebra.</td>
</tr>
<tr>
<td>MATH 71B — I</td>
<td>Intermediate Algebra - Second Half</td>
<td>3</td>
<td>Degree Applicable</td>
<td>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 71A, Intermediate Algebra.</td>
</tr>
<tr>
<td>MATH 71X — I</td>
<td>Practical Intermediate Algebra</td>
<td>5</td>
<td>Degree Applicable</td>
<td>90 hours lecture. Prerequisite: MATH 51 or MATH 51B or qualifying score on current department placement test. Intermediate Algebra for the non-calculus path. Recommended for Humanities, Social Sciences, and Applied Sciences. Recommended prerequisite for Math 100, Math 110, and Math 120. Polynomial, rational, radical, exponential and logarithmic expressions are simplified, equations solved, and real-world phenomena are modeled using least-squares methods; functions graphed and analyzed; linear and nonlinear systems of equations and inequalities; sequences, series, and probabilities; data gathering instruments are used to sample data for curve fitting.</td>
</tr>
<tr>
<td>MATH 96 — S</td>
<td>Strategies for Math Success</td>
<td>1</td>
<td>Not Degree Applicable</td>
<td>(May be taken for Pass/No Pass only) 18 hours lecture. Learning tools, plans and proper perspectives for math learning improvement. Use of natural intelligence strengths to simplify and optimize your mathematical educational experience. Overcome test anxiety and enhance testing abilities. Course is appropriate for all levels of mathematics students.</td>
</tr>
<tr>
<td>MATH 99 — S</td>
<td>Special Projects in Mathematics</td>
<td>2</td>
<td>Degree Applicable, CSU</td>
<td>(May be taken four times for credit) 36 hours lecture. In order to offer selected students recognition for their academic interests and ability and the opportunity to explore their disciplines to greater depth, the various departments from time to time offer Special Projects courses. The content of each course and the methods of study vary from semester to semester and depend on the particular project under consideration. Students who repeat this course will improve skills through further instruction and practice.</td>
</tr>
<tr>
<td>MATH 100 — S</td>
<td>Survey of College Mathematics</td>
<td>3</td>
<td>Degree Applicable, CSU, UC</td>
<td>54 hours lecture. Prerequisite: (MATH 71 or MATH 71X or MATH 71B or qualifying score on current department placement test) and (MATH 61 or passing score on current geometry competency test) Emphasis is placed on the understanding of statistical methods. Descriptive analysis of sample statistics, distribution of discrete and continuous random variables, estimation theory, tests of hypotheses, regression, correlation and analysis of variance.</td>
</tr>
<tr>
<td>MATH 101 — S</td>
<td>Elementary Statistics</td>
<td>3</td>
<td>Degree Applicable, CSU, UC</td>
<td>54 hours lecture. Not Degree Applicable 54 hours lecture. Prerequisite: (MATH 71 or MATH 71X or MATH 71B or qualifying score on current department placement test). Emphasis is placed on the understanding of statistical methods. Descriptive analysis of sample statistics, distribution of discrete and continuous random variables, estimation theory, tests of hypotheses, regression, correlation and analysis of variance.</td>
</tr>
<tr>
<td>MATH 110 — S</td>
<td>Calculus for Business</td>
<td>4</td>
<td>Degree Applicable, CSU, UC</td>
<td>72 hours lecture. Prerequisite: MATH 130 or MATH 160 or qualifying score on current department placement test. Emphasis is placed on the understanding of statistical methods. Descriptive analysis of sample statistics, distribution of discrete and continuous random variables, estimation theory, tests of hypotheses, regression, correlation and analysis of variance.</td>
</tr>
</tbody>
</table>
COURSE DESCRIPTIONS

MATH 150 — Trigonometry 3 Units
(CAN MATH08) Degree Applicable, CSU
54 hours lecture
Prerequisite: MATH 71 or 71B or qualifying score on current department placement test
Trigonometry functions and inverse trigonometric functions and the graphical representations of these functions; solutions to right and oblique triangles with laws of sines and cosines; vectors; solutions to trigonometric equations; identities; polar coordinates; complex numbers and DeMoivre's Theorem.

MATH 160 — Precalculus Mathematics 4 Units
(CAN MATH16) Degree Applicable, CSU, UC
72 hours lecture
Prerequisite: MATH 150, or qualifying score on current department placement test.
Prepares students for the calculus sequence. Real-valued functions, including algebraic, trigonometric, exponential, and logarithmic functions. Also includes proofs, inequalities, introductory analytical geometry, series, sequences, and vectors.

MATH 180 — Calculus and Analytic Geometry 4 Units
(CAN MATH18) Degree Applicable, CSU, UC
72 hours lecture
Prerequisite: MATH 160 or qualifying score on current department placement test.
Functions, curve sketching, limits, the derivative, rules for differentiation of algebraic and trigonometric functions, applications of the derivative. Indefinite and definite integrals, numerical integration, and calculus with exponential, logarithmic, and other transcendental functions.

MATH 181 — Calculus and Analytic Geometry 5 Units
(CAN MATH22) Degree Applicable, CSU, UC
90 hours lecture
Prerequisite: MATH 180
A transition to the rigorous of upper-division mathematics courses. Basic set theory and logic, relations, functions, mathematical induction, the well-ordering principle, countable and uncountable sets, the Schroder-Bernstein Theorem, the axiom of choice, Zorn's Lemma, the Heine-Borel Theorem, the Bolzano-Weierstrass Theorem. Special emphasis on how to present and understand mathematical proofs.

MATH 200 — Calculus and Analytic Geometry 4 Units
(CAN MATH24) Degree Applicable, CSU, UC
90 hours lecture
Prerequisite: MATH 181
First order ordinary differential equations, including separable, linear, homogeneous of degree zero, Bernoulli and exact with applications and numerical methods. Solutions to higher order differential equations using undetermined coefficients, variation of parameters, and power series, with applications. Solutions to linear and non-linear systems of differential equations, including numerical solutions. Matrix algebra, solutions of linear systems of equations, and determinants. Vector spaces, linear independence, basis and dimension, subspace and inner product space, including the Gram-Schmidt procedure. Linear transformations, kernel and range, eigenvalues, eigenvectors, diagonalization and symmetric matrices.

MATH 245 — A Transition to Advanced Mathematics 3 Units
Degree Applicable, CSU
54 hours lecture
Prerequisite: MATH 181
A transition to the rigor of upper-division mathematics courses. Basic set theory and logic, relations, functions, mathematical induction, the well-ordering principle, countable and uncountable sets, the Schroder-Bernstein Theorem, the axiom of choice, Zorn's Lemma, the Heine-Borel Theorem, the Bolzano-Weierstrass Theorem. Special emphasis on how to present and understand mathematical proofs.

MATH 280 — Calculus and Analytic Geometry 4 Units
(CAN MATH24) Degree Applicable, CSU, UC
90 hours lecture
Prerequisite: MATH 285
Analysis of vector-valued functions of several variables, partial derivatives, differentials, the chain rule, directional derivatives and the gradient. Extrema of functions of several variables with applications. Double and triple integrals in various coordinate systems with applications. Vector fields, line integrals, work, independence of path in conservative fields. Green's Theorem, surface integrals, flux, divergence and curl, Stokes' Theorem, the Divergence Theorem.

MATH 285 — Linear Algebra and Differential Equations 5 Units
(CAN MATH28) Degree Applicable, CSU, UC
90 hours lecture
Prerequisite: MATH 180
First order ordinary differential equations, including separable, linear, homogeneous of degree zero, Bernoulli and exact with applications and numerical methods. Solutions to higher order differential equations using undetermined coefficients, variation of parameters, and power series, with applications. Solutions to linear and non-linear systems of differential equations, including numerical solutions. Matrix algebra, solutions of linear systems of equations, and determinants. Vector spaces, linear independence, basis and dimension, subspace and inner product space, including the Gram-Schmidt procedure. Linear transformations, kernel and range, eigenvalues, eigenvectors, diagonalization and symmetric matrices.

MEDI 90 — Medical Terminology 3 Units
Degree Applicable, CSU
54 hours lecture
Prerequisite: MENT 56, MENT 56L
Introduction to the use and meaning of the medical terminology used in various allied health fields. Relates to other allied health fields and can apply to secretarial science majors.

MENT 40 — Introduction to Interviewing and Counseling 3 Units
Degree Applicable
54 hours lecture
Prerequisite: Admission to the Psychiatric Technician Program
Provides a basic overview of the helping processes. Stresses application of counseling theories, helping skills, and consultation theories to allow exploration of self as a helper and learn facilitating skills to bring about change. Emphasis on establishing rapport, obtaining information and developing a supportive relationship in a variety of mental health settings. Students may not receive credit for both MENT 40 and PSYC 40.

MENT 56 — Medical-Surgical Nursing for Psychiatric Technicians 9 Units
Degree Applicable
162 hours lab
Prerequisite: Admission to the Psychiatric Technician Program
Corequisite: MENT 56L
Holistic approach to assessment and intervention in the care of the medical-surgical patient. Examines physiological modes of rest and exercise, regulation, circulation, ventilation and the sensory system; medical-surgical nursing: care of the dying patient, cardiovascular problems; calculations of drug dosage and administration of oral and topical medications; study of anatomy and physiology of the human body.

MENT 56L — Clinical Experience 4 Units
Degree Applicable
(May be taken for Pass/No Pass only)
Prerequisite: Admission to the Psychiatric Technician Program
216 hours lab
Prerequisite: Admission to the Psychiatric Technician Program
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 for Psychiatric Technicians 4 Units
Degree Applicable
54 hours lecture
Prerequisite: MENT 56, MENT 56L
Corequisite: MENT 56L
Examines disease processes affecting body systems, etiology, required interventions; study of drugs, standards, administration; dose calculations.
MENT 58L — Advanced Medical-Surgical Nursing for Psychiatric Technicians Clinical

1.5 Units

(May be taken for Pass/No Pass only)
90 hours lab
Application of nursing skills to patients with medical/surgical disorders. Administration of medications.

MENT 70 — Introduction to Psychiatric Technology

27 hours lecture
Prerequisite: Admission to Psychiatric Technician Program
Corequisite: MENT 70L
Role and function of the Psychiatric Technician; mental health theories of personality development, self-concept, role function, and interdependence; developmental disabilities theories of sensorimotor techniques, behavior modification techniques.

MENT 70L — Introduction to Psychiatric Technology Clinical Technicians

2 Units

(May be taken for Pass/No Pass only)
108 hours lab
Corequisite: MENT 70
The clinical experience introduces the student to facilities within the community which serve the mental health field including both the mentally disordered and developmentally disabled.

MENT 72 — Nursing Care of the Developmentally Disabled Person

7 Units

(May be taken for Pass/No Pass only)
126 hours lecture
Prerequisite: MENT 56, MENT 70
Corequisite: MENT 72L
The clinical experience introduces the student to facilities within the community which serve the mental health field including both the mentally disordered and developmentally disabled.

MENT 72L — Nursing Care of the Developmentally Disabled Person - Clinical

5 Units

(May be taken for Pass/No Pass only)
288 hours lab
Corequisite: MENT 72
Application of skills needed to teach, train, and provide care for the developmentally disabled person. Calculation and administration of medication.

MENT 73L — Psychiatric Nursing for Psychiatric Technicians Clinical

5 Units

(May be taken for Pass/No Pass only)
288 hours lab
Corequisite: MENT 73T
Clinical instruction in the treatment of mental disabilities and substance abuse.

MENT 73T — Psychiatric Nursing for Psychiatric Technicians

6 Units

108 hours lecture
Corequisite: MENT 73L
Theoretical instruction in the assessment and treatment of the mentally disabled, use of common medication, therapeutic communication, assertive language and leadership skills appropriate for the practicing Psychiatric Technician.

MENT 82 — Work Experience in Mental Health

2 Units

(May be taken for Pass/No Pass only)
150 hours lab
Corequisite: MENT 82L
Provides majors with actual on-the-job experience in an approved work station related to classroom instruction. A minimum of 60 non-paid or 75 paid clock hours per semester is required for each unit of credit. It is recommended that the hour per week be equally distributed throughout the semester. Veterans may not use work experience courses as credit towards veterans benefits.

METEOROLOGY

METO 3 — Weather and the Atmospheric Environment

3 Units

54 hours lecture
An introduction to the atmosphere. Processes that influence weather and climate: seasonality, structure of the atmosphere, atmospheric stability, severe weather (hurricanes, tornadoes, thunderstorms), climate change, and the causes and effects of air pollution. Students will use a variety of weather instruments, and the course may include either field work or field trips.

METO 3L — Weather and Atmospheric Environment Laboratory

1 Unit

54 hours lab
Corequisite: METO 3 (may have been taken previously)
Laboratory topics paralleling the course content of METO 3.

MICROBIOLOGY

MIRC 1 — Principles of Microbiology

5 Units

(CAN BIOL 14)
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.

MIRC 22 — Microbiology

4 Units

54 hours lecture
54 hours lab
Prerequisite: CHEM 10 or CHEM 40
Fundamental concepts of microbiology; viruses, bacteria, fungi, protozoa and parasitic worms. Covers microbial classification, physiology and genetics; host-parasite interaction; control of disease-causing agents; public health microbiology; immune response and immune disorders. Important diseases of humans and other animals are surveyed. Laboratory exercises include experiments and observation on the morphology, physiology, and control of microorganisms.

MUSIC

MUS 1 — Concert Music

1 Unit

Degree Applicable, CSU
(May be taken four times for credit)
(May be taken for Pass/No Pass only)
18 hours lecture
A concert experience in listening to recitals, media presentations, and musical demonstrations and lectures given by faculty, artists, and students. Attendance at and reports on additional live concerts may be required. Students who repeat this course will improve skills through further instruction and practice. Course open to all students.

MUS 2 — Music Theory

3 Units

Degree Applicable, CSU, UC
54 hours lecture
Corequisite: MUS 5A
Study of harmony and form in Western tonal music. Explores the concept of tonality, the properties of melody, basic chord grammar and the mechanisms by which music projects meaning. Includes a comprehensive review of music fundamentals, including music notation, meter, scales, intervals and chord construction. Required for music majors.
### Course Descriptions

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Degree Applicable, CSU, UC</th>
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<tbody>
<tr>
<td>MUS 3A</td>
<td>Harmony</td>
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<td>Prerequisite: MUS 2, MUS 5A</td>
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<td>Corequisite: MUS 5B</td>
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<td>An examination of the harmonic style of Western tonal music from the common practice period. Topics include elementary chord syntax, the principles of voice leading, simple figured bass realization, soprano harmonization, basic non-chord tones, seventh chords, basic modulation techniques, period forms and binaries. Students will write analysis papers and compose original music in the harmonic and melodic style of Classical models.</td>
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<tr>
<td>MUS 3B</td>
<td>Harmony</td>
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<td>Prerequisite: MUS 3A, MUS 5B</td>
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<td>Corequisite: MUS 6A</td>
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<td>Further examination of the harmonic style of Western tonal music from the common practice period, with emphasis on the contrapuntal music of the Baroque Era. Topics include secondary function chords, advanced non-chord tones, advanced figured bass realization, harmonic sequences, modified species, 18th century counterpoint and imitative contrapuntal forms. Students will write analysis papers and compose original music in the harmonic and melodic style of Baroque models.</td>
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<td>MUS 3C</td>
<td>Harmony</td>
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<td>Prerequisite: MUS 3B, MUS 6A</td>
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<td>Further examination of the harmonic style of Western tonal music from the common practice period, with emphasis on 18th and 19th century repertoire. Topics include modal mixture, chromatic harmony, extended tonalization, advanced modulation techniques, lieder, rondo and sonata form. Students will write analysis papers and compose original music in the harmonic and melodic style of Romantic models.</td>
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<tr>
<td>MUS 5A</td>
<td>Musicianship</td>
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<td>Required for music majors. Emphasizes sight singing, aural perception and dictation of rhythm, melody, intervals and simple harmonic progressions. Students will be aided by the use of a computer lab, and documented lab time outside of class will be required for successful course completion.</td>
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<tr>
<td>MUS 5B</td>
<td>Musicianship</td>
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<td>Provides further training in sight singing, aural perception and dictation, including soprano-bass dictation of diatonic Bach-style chorales. Students will be aided by the use of a computer lab, and documented lab time outside of class will be required for successful course completion.</td>
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<tr>
<td>MUS 6A</td>
<td>Musicianship - Advanced</td>
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<td>Advanced training in sight singing, aural perception and dictation, including soprano-bass dictation of modulating Bach-style chorales and imitative counterpoint. Students will be aided by the use of a computer lab, and documented lab time outside of class will be required for successful course completion.</td>
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<td>MUS 6B</td>
<td>Musicianship - Advanced</td>
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<td>Provides further training in sight singing, aural perception and dictation, including soprano-bass dictation of chromatic chord progressions and aural reduction of decorated instrumental textures. Students will be aided by the use of a computer lab, and documented lab time outside of class will be required for successful course completion.</td>
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<td>MUS 7</td>
<td>Fundamentals of Music</td>
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<td>Non-music major course dealing with basic elements of music notation, melody, rhythm, and harmony. Written exercises utilizing the techniques of melody, rhythm, and harmony will be employed. Recommended for prospective elementary school teachers.</td>
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<td>MUS 8</td>
<td>Music Literature Survey</td>
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<td>Advisory: Eligibility for ENGL 6B</td>
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<td>A survey of western music from the Medieval period through the 21st century including examples of music from several non-western cultures. Lectures are augmented by recordings and other support media pertinent to the culture/period being studied. Attending at least one live concert is required.</td>
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<td>MUS 9</td>
<td>Introduction to Music Technology</td>
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<td>A survey of the uses of computers and electronic devices to capture, create, modify and disseminate music. Provides an introduction to the principles of musical acoustics, sound recording, and digital audio. Computer software for MIDI sequencing, sound synthesis, digital sampling, editing, music notation and composition will be demonstrated and practiced in class. Assignments will include the creation of original music.</td>
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<td>MUS 10</td>
<td>History of Jazz</td>
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<td>A survey of Jazz as a significant American art form from its roots in African and Creole music to the present. Major styles, leading performers, significant compositions and recordings, and the social, economic, and cultural contexts of the music will be stressed.</td>
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<td>MUS 11</td>
<td>Music Literature Survey</td>
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<td>Advisory: Eligibility for ENGL 6B</td>
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<td>A survey of western music from the 18th to the early 21st century including examples from several non-western cultures that have influenced music of those style periods. Lectures are augmented by recordings and other support media pertinent to the culture/period being studied. Attending at least one live concert is required.</td>
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<tr>
<td>MUS 12</td>
<td>History of Jazz</td>
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<td>MUS 13</td>
<td>Introduction to Music Appreciation</td>
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<td>54 hours lecture</td>
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<td>An introductory study of music from a variety of cultures including a survey of western music from the Medieval period through the 21st century. Lectures are augmented by recordings and other support media pertinent to the culture/period being studied. Attending at least one live concert is required.</td>
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<td>Course Code</td>
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</tbody>
</table>
| MUS 13H    | Music Appreciation - Honors           | 3     | Degree Applicable, CSU, UC  
54 hours lecture  
Prerequisite: Acceptance into the Honors Program  
An introductory study of music from a variety of cultures including a survey of western music from the Medieval period through the 21st century. Lectures are augmented by recordings and other support media pertinent to the culture/period being studied. Attending at least one live concert is required. An honors course designed to provide an enriched experience. Students may not receive credit for both MUS 13 and MUS 13H. |
| MUS 14A    | World Music                           | 3     | Degree Applicable, CSU, UC  
54 hours lecture  
Advisory: Eligibility for ENGL 68  
Examines the dominant musical cultures of the world within Africa, the Americas, and Asia and compares these to Western popular music. Identifies vocal and instrumental genres within selected cultures and examines the harmonic, melodic, and rhythmic characteristics of each style. Lectures, films, recordings, and media presentations will assist the student in exploring the ways in which music is used around the world for aesthetic, social, and spiritual purposes. |
| MUS 14B    | American Folk Music                   | 3     | Degree Applicable, CSU  
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     | Degree Applicable, CSU, UC  
(May be taken for option of letter grade or Pass/No Pass)  
54 hours lecture  
Historical survey of rock music from its beginnings in the early 50's to the present. Rhythm and Blues, Rockabilly, the British Invasion, Motown, Soul, Folk Rock, Hard Rock, Punk, Heavy Metal, and various Alternative Rock styles will be discussed. Personalities and musical styles will be related to the sociology of the time period being studied. |
| MUS 16     | Individual Instruction               | 3     | Degree Applicable, CSU, UC  
(CAN MUS14)  
(May be taken for credit)  
18 hours lecture  
108 hours lab  
Prerequisite: Admission by audition  
A course in applied music for students also enrolled in a major performing group. Instruction includes a private one-half hour lesson plus five and one-half hours of laboratory practice per week. Individual problems of performance techniques, interpretation, and repertoire are included. Students who repeat this course will improve skills through further instruction and practice. |
| MUS 17A    | Elementary Class Piano                | 1     | Degree Applicable, CSU, UC  
(May be taken four times for credit)  
18 hours lecture  
18 hours lab  
Reading and performance of piano literature with emphasis on scales, chord progressions, and sight reading. Students who repeat this course will improve skills through further instruction and practice. No prior musical experience is required. |
| MUS 17B    | Intermediate Class Piano              | 1     | Degree Applicable, CSU, UC  
(May be taken four times for credit)  
18 hours lecture  
18 hours lab  
Advisory: MUS 17A or professor approval  
Reading and performances of piano literature with further emphasis on scales, chord progressions, and sight reading. Students who repeat this course will improve skills through further instruction and practice. |
| MUS 18     | Advanced Class Piano                  | 1     | Degree Applicable, CSU, UC  
(May be taken four times for credit)  
18 hours lecture  
18 hours lab  
Advisory: MUS 17B  
The style, technique and interpretation of piano music from the 17th century to the present is studied collectively and individually. Sight reading, improvisation and ensemble playing will be emphasized. Students who repeat this course will improve skills through further instruction and practice. Recommended for music majors. |
| MUS 19     | Class Organ                           | 1     | Degree Applicable, CSU, UC  
(May be taken four times for credit)  
18 hours lecture  
18 hours lab  
Advisory: MUS 17B  
The style, technique and interpretation of piano music from the 17th century to the present is studied collectively and individually. Sight reading, improvisation and ensemble playing will be emphasized. Students who repeat this course will improve skills through further instruction and practice. |
| MUS 20A    | Elementary Class Voice                | 1     | Degree Applicable, CSU, UC  
(May be taken four times for credit)  
18 hours lecture  
18 hours lab  
Group instruction on the basics of singing with special emphasis on breath control and its importance in the singing of the musical line. English and American songs will be studied. Open to non-music majors and recommended for all music majors. Students who repeat this course will improve skills through further instruction and practice. |
| MUS 20B    | Intermediate Class Voice              | 1     | Degree Applicable, CSU, UC  
(May be taken four times for credit)  
18 hours lecture  
18 hours lab  
Advisory: MUS 20A  
Group and individual instruction toward mastering the basic skills required for a solid singing technique for popular, theatrical, and classical music. Studies of musicianship will concentrate on individual vocal problems. Students who repeat this course will improve skills through further instruction and practice. |
| MUS 21     | Advanced Class Voice                  | 1     | Degree Applicable, CSU, UC  
(May be taken four times for credit)  
18 hours lecture  
18 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 foreign languages. Students who repeat this course will improve skills through further instruction and practice. |
| MUS 22     | Conducting                            | 1     | Degree Applicable, CSU  
(May be taken four times for credit)  
18 hours lecture  
18 hours lab  
Teaches and practices basic beat patterns, score reading, and rehearsal techniques. Offers an opportunity to learn and apply the techniques needed for group direction and leadership. Students who repeat this course will improve skills through further instruction and practice. |
| MUS 23A    | Elementary Class Guitar               | 1     | Degree Applicable, CSU, UC  
(May be taken four times for credit)  
18 hours lecture  
18 hours lab  
Acoustic guitar playing, note reading, strumming, finger picking and improvisation. Students must furnish their own acoustic guitar. Students who repeat this course will improve skills through further instruction and practice. |
| MUS 23B    | Intermediate Class Guitar             | 1     | Degree Applicable, CSU, UC  
(May be taken four times for credit)  
18 hours lecture  
18 hours lab  
Advisory: MUS 23A  
Techniques for reading and playing music arranged for the solo guitar. Students must furnish their own acoustic guitar. Students who repeat this course will improve skills through further instruction and practice. |
### Course Descriptions

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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Description</th>
<th>Prerequisites</th>
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<tbody>
<tr>
<td>MUS 24</td>
<td>Advanced Class Guitar</td>
<td>1</td>
<td>(May be taken four times for credit) 18 hours lecture 18 hours lab</td>
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<td>Advisory: MUS 23B  The style, technique, and interpretation of guitar music of the 18th and 19th centuries will be studied and performed. Sight reading and ensemble playing will be emphasized. Students must furnish their own acoustic guitars. Students who repeat this course will improve skills through further instruction and practice.</td>
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<tr>
<td>MUS 25A</td>
<td>Jazz Improvisation</td>
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<td>(May be taken four times for credit) 18 hours lecture 18 hours lab</td>
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<td>Advisory: MUS 2 or MUS 7 and/or audition by professor Styles and techniques of improvisation. Each student must furnish his/her own instrument and be able to perform individually and with the class. Students who repeat this course will improve skills through further instruction and practice.</td>
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<tr>
<td>MUS 25B</td>
<td>Jazz Improvisation</td>
<td>1</td>
<td>(May be taken four times for credit) 18 hours lecture 18 hours lab</td>
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<td></td>
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<td>Advisory: MUS 2 or MUS 7 and/or audition by professor and MUS 25A or equivalent experience Styles and techniques of improvisation. Each student must furnish his/her own instrument and be able to perform individually and with the class. Augments and supplements MUS 25A. Students who repeat this course will improve skills through further instruction and practice.</td>
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<tr>
<td>MUS 27</td>
<td>Chamber Winds</td>
<td>2</td>
<td>(May be taken four times for credit) 108 hours lab</td>
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<td></td>
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<td>Corequisite: MUS 49 and admission by audition This select ensemble of wind instruments will study and perform small ensemble music by major composers. Includes brass and woodwind quintets and ensembles for families of instruments. Attendance is required at all public performances. Students who repeat this course will improve skills through further instruction and practice.</td>
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<tr>
<td>MUS 29</td>
<td>Choral Workshop</td>
<td>1</td>
<td>(May be taken four times for credit) 54 hours lab</td>
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<td>Open to all students without an audition. Choral music of all genres with an emphasis on strengthening choral skills, including sight singing, tone, blend, balance and good vocal technique. Covers choral tone of the Renaissance to correct use of the microphone when singing pop or vocal jazz. Several guest conductors from local universities will provide clinics. Students who repeat this course will improve skills through further instruction and practice.</td>
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<tr>
<td>MUS 30</td>
<td>Collegiate Chorale</td>
<td>1</td>
<td>(May be taken four times for credit) 54 hours lab</td>
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<td>A non-auditioned mixed choral ensemble open to all students. A variety of mixed choral repertoire will be studied and performed, from music of the Renaissance to contemporary Pop, Broadway, and Vocal Jazz. Rehearsal time will also be devoted to vocal development and improving music theory skills. Students who repeat this course will improve skills through further instruction and practice.</td>
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<tr>
<td>MUS 31</td>
<td>Concert Choir</td>
<td>2</td>
<td>(May be taken four times for credit) 18 hours lecture 18 hours lab</td>
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<td>Prerequisite: Admission by audition the first week of class A mixed choral ensemble in which students perform a variety of major choral works. Classical songs are rehearsed in class and performed for a public audience. Sight singing skills and proper vocal technique are emphasized. Voice placement auditions are held the first week of class. Attendance at all performances is required. Students who repeat this course will improve skills through further instruction and practice.</td>
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<tr>
<td>MUS 32</td>
<td>Masterworks Chorale</td>
<td>1</td>
<td>(May be taken four times for credit) 54 hours lab</td>
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<td>Prerequisite: Admission by audition during the first week of class This Soprano, Alto, Tenor, Bass choir will perform major choral works ranging from the Baroque era to the 20th century. In addition to preparation and performance of quality choral literature from all genres, time will be spent on vocal development and music theory. Students who repeat this course will improve their skills through further instruction, practice, and knowledge of varied repertoire.</td>
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<tr>
<td>MUS 33</td>
<td>Laboratory Band</td>
<td>2</td>
<td>(May be taken four times for credit) 108 hours lab</td>
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<td>Prerequisite: Admission by audition Study and performance of jazz and popular music of all types. Provides the necessary training and experience for MUS 47, Jazz Band, or for the improvement of jazz skills and understanding. Students who repeat this course will improve skills through further instruction and practice.</td>
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<tr>
<td>MUS 34</td>
<td>Womens Vocal Ensemble</td>
<td>2</td>
<td>(May be taken four times for credit) 108 hours lab</td>
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<td>Prerequisite: Admission by audition during the first week of class This women's group will study and perform selected classical works, folk songs, spirituals, and popular compositions. Attendance is required at all public performances. Students who repeat this course will improve skills through further instruction and practice.</td>
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<tr>
<td>MUS 35</td>
<td>Concert and Community Band</td>
<td>2</td>
<td>(May be taken four times for credit) 108 hours lab</td>
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<td>Advisory: Previous band experience Study and performance of standard and new band literature. Experience will be given to capable student directors, soloists, arrangers and composers. Attendance is required at all public performances. Students who repeat this course will improve skills through further instruction and practice.</td>
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<tr>
<td>MUS 36</td>
<td>Ensemble</td>
<td>1</td>
<td>(May be taken four times for credit) 18 hours lecture 18 hours lab</td>
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<td>Prerequisite: Ability to read music or admission by audition The study and performance of music written for small ensembles. Students who repeat this course will improve skills through further instruction and practice.</td>
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<tr>
<td>MUS 37</td>
<td>Laboratory Band</td>
<td>2</td>
<td>(May be taken four times for credit) 108 hours lab</td>
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<td>Prerequisite: Admission by audition Study and performance of jazz and popular music of all types. Provides the necessary training and experience for MUS 47, Jazz Band, or for the improvement of jazz skills and understanding. Students who repeat this course will improve skills through further instruction and practice.</td>
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</tbody>
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108 hours lab
18 hours lecture
Degree Applicable, CSU, UC
(May be taken four times for credit)
### COURSE DESCRIPTIONS

#### MUS 40 — Pep Band 1 Unit  
(May be taken four times for credit)  
54 hours lab  
Prerequisite: Admission by audition  
Study and performance of standard and contemporary music for athletic and school spirit functions. Attendance is required at assigned public performances. Students who repeat this course will improve skills through further instruction and practice.

#### MUS 44 — Vocal Jazz Ensemble 3 Units  
(May be taken for option of letter grade or Pass/No Pass)  
162 hours lab  
Prerequisite: Admission by audition  
A vocal ensemble appropriate for beginning and intermediate jazz singers. This group will perform vocal jazz charts accompanied by a rhythm section, as well as a cappella. Basics of singing jazz, vocal improvisation, group singing techniques, and microphone techniques. Ensemble will perform locally and/or at vocal jazz festivals. Attendance at performances and competitions is required. Students who repeat this course will improve skills through further instruction and practice.

#### MUS 45 — Chamber Singers 3 Units  
(May be taken for option of letter grade or Pass/No Pass)  
162 hours lab  
Prerequisite: Admission by audition  
A highly select mixed choral group, specializing in smaller ensemble repertoire. A wide variety of choral literature is performed publicly several times each semester and a performance tour occurs each Spring semester. Emphasizes advanced musical skills and vocal techniques while focusing on the importance of blend, balance, and tone. Auditions for this course are held each May. Students who repeat this course will improve skills through further instruction and practice.

#### MUS 46 — Mt. SAC Singers 2 Units  
(May be taken for Pass/No Pass only)  
36 hours lecture  
36 hours lab  
Prerequisite: Admission by audition  
The "Mt. SAC Singers" is a select choral ensemble, specializing in choreographed popular and musical theater literature. Includes a wide variety of music performed publicly several times every semester. Emphasizes advanced musical skills, vocal technique, choreography and showmanship skills. Students who repeat this course will improve skills through further instruction and practice.

#### MUS 47 — Jazz Band 3 Units  
(May be taken four times for credit)  
162 hours lab  
Prerequisite: Admission by audition  
An instrumental ensemble dealing with all types of popular music and jazz. Preference will be given to performers playing more than one instrument. Students who repeat this course will improve skills through further instruction and practice.

#### MUS 48 — Men’s Vocal Ensemble 2 Units  
(May be taken for option of letter grade or Pass/No Pass)  
108 hours lab  
Prerequisite: Admission by audition the first week of class  
The study and performance of selected classical works, folk songs, spirituals, and popular compositions. Attendance is required at all public performances. Students who repeat this course will improve skills through further instruction and practice.

#### MUS 49 — Wind Ensemble 3 Units  
(May be taken for Pass/No Pass only)  
162 hours lab  
Prerequisite: Admission by audition  
The premier classical wind and percussion ensemble at the College. Students must have previous instrumental training and demonstrate proficiency. Requires public performances. Concerts emphasize works of major composers, original compositions, and guest artists. Experience may be given to capable students as directors, soloists, arrangers, and composers. Students who repeat this course will improve skills through further instruction and practice.

#### MUS 50 — Jazz Improvisation and Performance Choir 3 Units  
(May be taken for Pass/No Pass only)  
162 hours lab  
Prerequisite: Admission by audition  
An advanced vocal jazz choir. This choir will perform advanced vocal jazz arrangements and students will study the historical, theoretical and technical aspects of both instrumental and vocal jazz. Advanced solo singing techniques and scat singing will be rehearsed and the choir will perform at least one concert each semester at Mt. SAC along with attending and performing at a variety of musical venues. This class will have the opportunity to work with guest artists and make CD recordings. Attendance is required at assigned public performances. Students who repeat this course will improve skills through further instruction and practice. Admission by audition.

#### MUS 99 — Special Projects in Music 1 to 3 Units  
(May be taken four times for credit)  
36 hours lab  
Offered to selected students in recognition of academic interests and abilities to give them the opportunity to explore these interests and abilities in greater depth. The content of each course and the methods of study vary from semester to semester and depend on the particular project under consideration. Students must have an instructor’s approval before enrolling in this course. Students repeating this course will make individual contracts of a more advanced nature with the instructor to ensure that proficiencies are enhanced. Projects must be approved in advance.

#### NURSING

##### NURS 1A — The Nursing Process I 4.75 Units  
Degree Applicable, CSU  
45 hours lecture  
126 hours lab  
Prerequisite: Admission to Nursing Program; ANAT 35 or equivalent and AP 10A or equivalent and AP 10B or equivalent and MCR 22 or equivalent or MCR 1 or equivalent and ENGL 1A or equivalent  
Corequisite: NURS 2  
Principles of nursing as related to a culturally diverse population, adulthood through senescence. Theory and application of the Nursing Process. Including meaning of illness, promoting health patterns, hygiene, safety, asepsis, medication administration, elimination, communication. The Betty Neuman Model serves as the conceptual framework.

##### NURS 1B — The Nursing Process II 4.75 Units  
Degree Applicable, CSU  
45 hours lecture  
126 hours lab  
Prerequisite: NURS 1A or Advanced Placement  
Corequisite: NURS 2  
Principles of nursing as related to culturally diverse population, adulthood through senescence. Theory and application of the Nursing Process including wound care, legal/ethical aspects, comfort, fluid and electrolytes, spirituality, and nursing trends. The Betty Neuman Model serves as the conceptual framework.

##### NURS 2 — Pharmacology 2 Units  
Degree Applicable, CSU  
36 hours lecture  
Prerequisite: Admission to Nursing Program and eligibility for MATH 51  
Corequisite: NURS 1A  
The ethical and legal responsibilities in the administration of medications. Application of mathematical concepts, the Nursing Process, and drug therapy to the administration of fluids and medications.
### Course Descriptions

<table>
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<tr>
<th>Course Code</th>
<th>Title</th>
<th>Units</th>
<th>Description</th>
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</table>
| NURS 3 | Medical-Surgical Nursing: Locomotion/Sensation/Integument/Oncology | 3.5 | Degree Applicable, CSU  
30 hours lecture  
99 hours lab  
Prerequisite: NURS 18 and NURS 2 or Advanced Placement  
Concepts of nursing assessment and intervention with application to clients with integumentary and immunologic disorders as well as dysfunctions of sensation and locomotion. An introduction to oncology nursing is included. The Betty Neuman Model serves as the conceptual framework. |
| NURS 4 | Maternity Nursing | 3 | 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 | Degree Applicable, CSU  
27 hours lecture  
81 hours lab  
Prerequisite: NURS 4 or Advanced Placement and PSYC 1A  
Concepts of nursing assessment and intervention with application to clients with psychiatric disorders in a mental health setting. The Betty Neuman Model serves as the conceptual framework. |
| NURS 6 | Pediatric Nursing | 3 | Degree Applicable, CSU  
27 hours lecture  
81 hours lab  
Prerequisite: NURS 5 or Advanced Placement and CHLD 10 or PSYC 14  
Concepts of nursing assessment and intervention with application to pediatric clients. The Betty Neuman Model serves as the conceptual framework. |
| NURS 7 | Medical-Surgical Nursing: Nutrition/Elimination/Surgical Asepsis | 7 | Degree Applicable, CSU  
60 hours lecture  
198 hours lab  
Prerequisite: NURS 6 or Advanced Placement  
Concepts of nursing assessment and intervention with application to clients with problems of nutrition, elimination, and the reproductive systems. Clients in pre-, intra-, and post-operative settings are included. The Betty Neuman Model serves as the conceptual framework. |
| NURS 8 | Medical-Surgical Nursing: Circulation and Oxygenation | 5 | Degree Applicable, CSU  
45 hours lecture  
144 hours lab  
Prerequisite: NURS 7 or Advanced Placement  
Concepts for nursing assessment and intervention with application to clients with cardiovascular and pulmonary problems. The Betty Neuman Model serves as the conceptual framework. |
| NURS 9 | Leadership in Nursing | 1 | Degree Applicable, CSU  
18 hours lecture  
Prerequisite: NURS 7 or Advanced Placement  
Corequisite: NURS 8  
Assists the second year student to develop cognitive and leadership skills for first level management positions. Includes exploration and analysis of current trends and issues in nursing. |
| NURS 10 | Medical-Surgical Nursing: Integration/Regulation | 4 | Degree Applicable, CSU  
45 hours lecture  
96 hours lab  
Prerequisite: NURS 8, NURS 9 or Advanced Placement  
Corequisite: NURS 11  
Provides an understanding of the complexities of integrated health care delivery systems. Provides an opportunity for students to further develop, under the supervision of a registered professional nurse, the critical thinking, leadership, and management skills necessary for first level management positions. |
| NURS 11 | Preceptorship in Nursing | 2 | Degree Applicable, CSU  
(May be taken for Pass/No Pass only)  
112 hours lab  
Advisory: NURS 10 or Advanced Placement  
Students participate as a pre-licensed health team member immediately prior to graduation. Students assume responsibility for a group of clients under direct supervision of a qualified registered nurse. |
| NURS 20 | Nursing Work Experience Program | 1 to 4 | Not Degree Applicable  
(May be taken four times for credit)  
(May be taken for Pass/No Pass only)  
75 to 300 hours lab  
Prerequisite: Compliance with Work Experience regulations as designated in the College Catalog. Current satisfactory status in the Nursing Program  
On-the-job experience for nursing students in an approved work setting related to classroom instruction. A minimum of 75 paid or 60 non-paid clock hours per semester of supervised work is required for each unit of credit. It is recommended that the hours per week be equally distributed throughout the semester. Students who repeat this course will improve skills through further instruction and practice. |
| NURS 70 | Role Transition | 3 | Degree Applicable  
(May be taken for Pass/No Pass only)  
36 hours lecture  
54 hours lab  
Prerequisite: Advanced Placement; PT (Psychiatric Technician) or LVN (Licensed Vocational Nurse); ANAT 35 or equivalent and ANAT 36 or equivalent, and ANAT 10A or equivalent and ANAT 10B or equivalent, and MICR 22 or equivalent, or MICR 1 or equivalent, and ENGL 1A or equivalent, and PSYC 1A or equivalent, and CHLD 10 or equivalent and PSYC 14 or equivalent  
For the LVN (Licensed Vocational Nurse), PT (Psychiatric Technician) or advanced placement student transitioning into the role of the RN (Registered Nurse). Theory and application of concepts of physical assessment, the relationship of homeostatic mechanisms to fluid and electrolyte balance/imbalance utilizing the Betty Neuman Model as the conceptual framework. |
| NURS 99 | Special Projects in Nursing | 2 | Not Degree Applicable  
(May be taken for Pass/No Pass only)  
108 hours lab  
Prerequisite: Placement in Nursing Program  
Provides students the opportunity to explore a discipline in greater depth. Content of each course and the methods of study will depend on the particular project. Instructor’s authorization before enrolling is required. |

### NUTRITION AND FOOD

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<th>Course Code</th>
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<th>Units</th>
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| NF 10 | Nutrition for Personal Health and Wellness | 3 | Degree Applicable, CSU  
54 hours lecture  
Prerequisite: Eligibility for ENGL 68  
Basic principles of human nutrition and their relationship to optimum health. Emphasizes nutrient needs, food selection and weight control during the various life stages from prenatal to adult. Student food intake is evaluated in several ways including computer diet analysis. This course is intended for non-health science majors. |
| NF 20 | Principles of Food with Lab | 3 | Degree Applicable, CSU  
(CAN FCS08)  
36 hours lecture  
54 hours lab  
Prerequisite: Advanced Placement or AP  
Introduction to basic food science principles and food preparation procedures with emphasis on ingredient functions and interaction; food preparation techniques and skills; sensory evaluation standards; food safety and sanitation; food preparation equipment and utensils; storage standards; and nutrient retention. |
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<th>Course Code</th>
<th>Course Title</th>
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| NF 25       | Essentials of Nutrition                          | 3    | Degree Applicable, CSU, UC  
54 hours lecture  
Prerequisite: Eligibility for ENGL 68  
Scientific concepts of nutrition related to the function of nutrients in basic life processes with emphasis on current health issues; individual needs; functions and sources of nutrients; scientific method for analysis and evaluation of nutrition information; dietary guidelines and current nutrition recommendations; digestion, absorption and metabolism; health, fitness and disease; nutrition in the life span. |
| NF 25H      | Principles of Nutrition - Honors                 | 3    | Degree Applicable, CSU, UC  
54 hours lecture  
Prerequisite: Acceptance into the Honors Program  
Scientific concepts of nutrition related to the function of nutrients in basic life processes with emphasis on current health issues; individual needs; functions and sources of nutrients; scientific method for analysis and evaluation of nutrition information; dietary guidelines and current nutrition recommendations; digestion, absorption and metabolism; health, fitness and disease; nutrition in the life span. |
| NF 28       | Cultural and Ethnic Foods                        | 3    | Degree Applicable, CSU, UC  
54 hours lecture  
Advisory: Eligibility for ENGL 68  
Regional, ethnic, cultural, religious, historical and social influences on food patterns and cuisines. Core components: specialized equipment and utensils related to cultures; traditional foods of selected cultures; geographic factors in food availability; global food issues; sanitation and safety practices. |
| NF 30       | Food Science Technologies                        | 3    | Degree Applicable, CSU  
54 hours lecture  
Advisory: Eligibility for ENGL 68  
Exploration of food chemistry, food processing and technology and how these affects the color, flavor, texture, aroma and quality of foods. Core components: government regulation of processing and labeling, sensory evaluation, scientific research methods, function of water in foods, pH and acidity, food processing technologies, nutritional labeling, packaging; dispersion systems, enzyme reactions, food additives, composition and properties of food. |
| NF 61       | Creative Foods                                   | 3    | Degree Applicable  
36 hours lecture  
54 hours lab  
Advisory: NF 20 or food preparation experience  
Instruction in the skills necessary for more advanced methods of food preparation. Topics include garde manger, baking and pastry, and international cuisine, techniques of healthy cooking, and vegetarian cuisine with emphasis placed on knife skills, garnishing, plate presentation and creative decorating. |
| NF 62       | Meal Management                                  | 3    | Degree Applicable, CSU  
36 hours lecture  
54 hours lab  
Advisory: NF 20 or equivalent food preparation experience  
Develop management skills related to food preparation, emphasizing planning, preparing, and serving adequate and attractive meals while managing resources including time, money and labor. Includes laboratory experience in planning, preparing and serving meals. |
| NF 81       | Cooking for Your Heart and Health                | 1    | Not Degree Applicable  
(May be taken for option of letter grade or Pass/No Pass)  
12 hours lecture  
18 hours lab  
Principles and techniques of healthful food preparation emphasizing the reduction of fat, saturated fat, trans fat, cholesterol, and sodium, and the increase of fiber and nutrients in foods. The course includes laboratory experience in preparation of health promoting foods and meals. |
| NF 82       | Vegetarian Cuisine                               | 1    | Not Degree Applicable  
(May be taken for option of letter grade or Pass/No Pass)  
12 hours lecture  
18 hours lab  
Principles and techniques of vegetarian food preparation and investigation of issues related to vegetarian eating practices. Includes laboratory experience in preparation of vegetarian foods and meals. |
| OCEA 10     | Introduction to Oceanography                     | 3    | Degree Applicable, CSU, UC  
54 hours lecture  
An introduction to the ocean environment including the geologic, chemical, physical, and ecological aspects of the field. Topics include plate tectonics, currents, waves, tides, shores and human impact on the oceans. Field trips included. |
| OCEA 10H    | Introduction to Oceanography - Honors            | 3    | Degree Applicable, CSU, UC  
54 hours lecture  
Prerequisite: Acceptance into the Honors Program  
An honors course designed to provide an enriched experience. Introduces the geological, chemical, physical, and biological aspects of the Earth’s ocean. Topics include plate tectonics, physiography of ocean basins and continental margins, ocean sediment, atmosphere and ocean circulation, waves and tides, coasts, and marine ecology. The companion Oceanography Lab (OCEA 10L) is recommended for students needing a lab to transfer to a 4-year college/university. Field trips are required. Students may not receive credit for both OCEA 10 and OCEA 10H. |
| OCEA 10L    | Introduction to Oceanography Laboratory          | 1    | Not Degree Applicable  
54 hours lab  
Corequisite: OCEA 10 or OCEA 10H (May have been taken previously)  
Laboratory applications and problem-solving in oceanography, including related aspects of geology, meteorology, and marine biology. Recommended for students needing a lab to transfer to a 4-year college/university. |

**Philosophy**

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<th>Course Code</th>
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| PHIL 3      | Logic in Practice                   | 3    | Degree Applicable, CSU, UC  
54 hours lecture  
Prerequisite: Eligibility for ENGL 68  
The analysis of language as an instrument of sound thinking in morals, politics and everyday life. Assists students to analyze an argument, avoid faulty conclusions in reasoning, understand levels of meaning and kinds of arguments, avoid verbal pitfalls, understand the steps of scientific methods and identify value assumptions. |
| PHIL 3H     | Logic in Practice - Honors          | 3    | Degree Applicable, CSU, UC  
54 hours lecture  
Prerequisite: Acceptance into the Honors Program  
The analysis of language as an instrument of sound thinking in morals, politics and everyday life. Assists students to analyze an argument, avoid faulty conclusions in reasoning, understand levels of meaning and kinds of arguments, avoid verbal pitfalls, understand the steps of scientific methods and identify value assumptions. An honors course designed to provide an enriched experience. Students may not receive credit for both PHIL 3 and PHIL 3H. |
| PHIL 5      | Introduction to Philosophy          | 3    | Degree Applicable, CSU, UC  
54 hours lecture  
Prerequisite: Eligibility for ENGL 68  
An exploration of basic issues in ethics, social philosophy, metaphysics, theories of knowledge and contemporary philosophies of life. |
PHIL 8 — Critical Thinking 3 Units
54 hours lecture
The effective use of critical thinking in contemporary living, including recognizing fallacies and writing effectively.
Prerequisite: ENGL 1A
Degree Applicable, CSU, UC

PHIL 9 — Critical Thinking and Logical Writing 3 Units
54 hours lecture
The function and use of formal and informal logic, argument, critical evaluation, and language in written composition.
Prerequisite: ENGL 1A
Degree Applicable, CSU, UC

PHIL 10 — Basic Digital and Film Photography 3 Units
54 hours lecture
This course is designed to provide an enriched experience. Camera will be required after the second week.
Prerequisite: PHOT 11
Degree Applicable, CSU, UC

PHIL 11 — Advanced Professional Photography 4 Units
54 hours lab
The basic mechanical, optical, and chemical principles of photography, including digital image systems. Students must furnish SLR camera.
Prerequisite: PHOT 10
Degree Applicable

PHIL 12 — Ethics 3 Units
54 hours lecture
A critical analysis of ethical theories and their application to the study of moral problems.
Prerequisite: Acceptance into the Honors Program
Degree Applicable, CSU, UC

PHIL 12H — Ethics - Honors 3 Units
54 hours lecture
Critical analysis of ethical theories and their application to the study of moral problems. An honors course designed to provide an enriched experience. Students may not receive credit for both PHIL 12 and PHIL 12H.
Prerequisite: Acceptance into the Honors Program
Degree Applicable, CSU, UC

PHIL 15 — Major World Religions 3 Units
54 hours lecture
Examines the salient features of the world’s major and enduring religions. Religion is approached as the expression of one’s ultimate concern as a means of understanding the historical and ideological foundations and aspirations of the peoples of the world. The following (or more) religions are presented and examined both appreciatively and critically: Hinduism, Buddhism, Taoism, Confucianism, Shinto, Judaism, Christianity.
Prerequisite: Eligibility for ENGL 68
Degree Applicable, CSU, UC

PHIL 15H — Major World Religions - Honors 3 Units
54 hours lecture
An exploration of the basic issues in ethics, social philosophy, metaphysics, theories of knowledge and contemporary philosophies of life. An honors course designed to provide an enriched experience. Students may not receive credit for both PHIL 15 and PHIL 15H.
Prerequisite: Acceptance into the Honors Program
Degree Applicable, CSU, UC

PHIL 18 — Critical Thinking and Logical Writing 3 Units
54 hours lecture
The function and use of formal and informal logic, argument, critical evaluation, and language in written composition.
Prerequisite: ENGL 1A
Degree Applicable, CSU, UC

PHIL 19 — Critical Thinking and Logical Writing 3 Units
54 hours lecture
The function and use of formal and informal logic, argument, critical evaluation, and language in written composition.
Prerequisite: ENGL 1A
Degree Applicable, CSU, UC

PHIL 20A — History of Western Philosophy 3 Units
54 hours lecture
Examines the major western philosophers and philosophical ideas from pre-Socratic times to the Renaissance.
Prerequisite: PHIL 10
Degree Applicable, CSU, UC

PHIL 20B — History of Western Philosophy 3 Units
54 hours lecture
Examines the major western philosophy and philosophical ideas from the Renaissance to the twentieth century.
Prerequisite: PHIL 10
Degree Applicable, CSU, UC

PHOT 1 — Laboratory Studies: Black and White Photography 1 Unit
36 hours lecture
Explore the use of continuous tone and alternative black and white techniques and processes. Emphasis will be on solving photographic problems through the use of current techniques such as montage printing, Polaroid and xerographic applications, hand coloring, and emulsion coating (cyanotype, Luminous/Liquid Light) as well as other special techniques.
Prerequisite: PHOT 10
Degree Applicable, CSU, UC

PHOT 2 — Laboratory Studies: Color Photography 1 Unit
54 hours lab
Use of studio equipment, and studio and location lighting techniques used in all aspects of commercial photographic applications. Students must furnish adjustable SLR camera.
Prerequisite: PHOT 10
Degree Applicable
### PHOT 15 — History of Photography 3 Units
Degree Applicable, CSU, UC
54 hours lecture
Survey of the history of photography from circa 1839 to the present. An introduction to concepts of photographic representation and their impact on society.

### PHOT 16 — Fashion Photography 3 Units
Degree Applicable
36 hours lecture
54 hours lab
Prerequisite: PHOT 11
Illustrative, editorial and advertising fashion photography. Studio and location production in both black and white and color are emphasized. Aspects of business operation and working with clients are explored.

### PHOT 17 — Photocommunication 3 Units
Degree Applicable
36 hours lecture
72 hours lab
Prerequisite: PHOT 10
Explores the application of the photosensitive materials, photochemicals and optics. The emphasis will be on the aesthetic and expressive uses to which these materials lend themselves. The student is expected to supply his/her own adjustable camera.

### PHOT 18 — Portraiture and Wedding Photography 3 Units
Degree Applicable
(May be taken for option of letter grade or Pass/No Pass)
36 hours lecture
54 hours lab
Prerequisite: PHOT 10
Techniques and photographic procedures for taking informal, formal, environmental and group portraits. In depth study and practice in professional wedding photography.

### PHOT 19 — Color Photography 3 Units
Degree Applicable
(May be taken for option of letter grade or Pass/No Pass)
36 hours lecture
54 hours lab
Prerequisite: PHOT 10
An introduction to current methods of producing color media, color negatives, positive transparencies, and outputting color prints.

### PHOT 20 — Exploring Color Photography 3 Units
Degree Applicable
36 hours lecture
54 hours lab
Prerequisite: PHOT 20
Explores the application of color processes as they relate to commercial and artistic styles. Emphasis is on innovative use of color and contemporary techniques. Includes media manipulation and unique processing, coloring negatives, 8x10 Polaroid, digital imagery, specialized lighting, set building, and quality control.

### PHOT 21 — Exploring Color Photography 3 Units
Degree Applicable
54 hours lab
Application of photographic principles to commercial and illustrative photography. Practical experience in studio product photography, illustration, fashion, and architectural photography. Areas of promotion and pricing will be covered. Both black-and-white and color media will be used.

### PHOT 22 — Exploring Color Photography 3 Units
Degree Applicable
54 hours lab
Prerequisite: PHOT 11, PHOT 20
Development of a photography portfolio for job application or gallery exhibition purposes.

### PHOT 23 — Exploring Color Photography 3 Units
Degree Applicable
54 hours lab
Prerequisite: PHOT 11, PHOT 20
Application of photographic principles to commercial and illustrative photography. Practical experience in studio product photography, illustration, fashion, and architectural photography. Areas of promotion and pricing will be covered. Both black-and-white and color media will be used.

### PHOT 24 — Exploring Color Photography 3 Units
Degree Applicable
54 hours lab
Prerequisite: PHOT 11, PHOT 20
Application of photographic principles to commercial and illustrative photography. Practical experience in studio product photography, illustration, fashion, and architectural photography. Areas of promotion and pricing will be covered. Both black-and-white and color media will be used.

### PHOT 25 — Exploring Color Photography 3 Units
Degree Applicable
54 hours lab
Prerequisite: PHOT 11, PHOT 20
Application of photographic principles to commercial and illustrative photography. Practical experience in studio product photography, illustration, fashion, and architectural photography. Areas of promotion and pricing will be covered. Both black-and-white and color media will be used.

### PHOT 26 — Exploring Color Photography 3 Units
Degree Applicable
54 hours lab
Prerequisite: PHOT 11, PHOT 20
Application of photographic principles to commercial and illustrative photography. Practical experience in studio product photography, illustration, fashion, and architectural photography. Areas of promotion and pricing will be covered. Both black-and-white and color media will be used.

### PHOT 27 — Exploring Color Photography 3 Units
Degree Applicable
54 hours lab
Prerequisite: PHOT 11, PHOT 20
Application of photographic principles to commercial and illustrative photography. Practical experience in studio product photography, illustration, fashion, and architectural photography. Areas of promotion and pricing will be covered. Both black-and-white and color media will be used.

### PHYSICAL EDUCATION: ADAPTIVE

<table>
<thead>
<tr>
<th>Course Description</th>
<th>Units</th>
<th>Degree Applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>PE-L 2 — Physical Fitness for the Physically Limited</td>
<td>.5 to 1 Unit</td>
<td>Degree Applicable, CSU, UC</td>
</tr>
<tr>
<td>PE-L 3 — Adaptive Aerobics</td>
<td>1 Unit</td>
<td>Degree Applicable, CSU, UC</td>
</tr>
<tr>
<td>PE-L 4 — Adaptive Aquatics</td>
<td>1 Unit</td>
<td>Degree Applicable, CSU, UC</td>
</tr>
<tr>
<td>PE-L 5 — Wheelchair Sports</td>
<td>1 Unit</td>
<td>Degree Applicable, CSU, UC</td>
</tr>
<tr>
<td>PE-L 6 — Activity Programs for the Physically Limited</td>
<td>.5 to 1 Unit</td>
<td>Degree Applicable, CSU, UC</td>
</tr>
<tr>
<td>PE-L 7 — Weight Training for the Physically Limited</td>
<td>.5 to 1 Unit</td>
<td>Degree Applicable, CSU, UC</td>
</tr>
</tbody>
</table>

(Course Descriptions continued on next page)
Course Descriptions

PHYSICAL EDUCATION: AQUATICS

Cluster repeatability:
Credit students are limited to enroll up to 4 times only for any combination of courses within a designated cluster, regardless of the individual course unit values. Clusters:
- PE-A 8A, PE-A 8B, PE-A 8C
- PE-X 8A, PE-X 8B
- PE-X 10A, PE-X 10B

PE-A 4 — Lifeguard Training
1 Unit
Degree Applicable, CSU, UC
(May be taken for option of letter grade or Pass/No Pass)
36 to 54 hours activity
Prerequisite: 1) 17 years of age or older at the start of the course; 2) Demonstrates proficiency equivalent to Level VI of the American Red Cross Learn to Swim Program; 3) Demonstrates skills on a proficiency test. This course will improve skills through further instruction and practice.

PE-A 8A — Swimming - Beginning
.5 to 1 Unit
Degree Applicable, CSU, UC
(May be taken four times for credit)
(May be taken for option of letter grade or Pass/No Pass)
36 to 54 hours activity
Student must be able to perform front crawl 50 yards, deep water tread for two minutes continuously, legs only.
Meets American Red Cross requirements for lifeguard training. To receive certification, students must pass the written and practical skills test with an 80% or better. Students who meet all qualifications will receive the American Red Cross Lifeguard Training, CPR for the Professional Rescuer and First Aid Certificates. The objective of the course is to recertify and improve rescue techniques through supervised practice and instruction.

PE-A 8B — Swimming - Intermediate
.5 to 1 Unit
Degree Applicable, CSU, UC
(May be taken four times for credit)
(May be taken for option of letter grade or Pass/No Pass)
36 to 54 hours activity
Designed to improve basic swimming strokes and aquatic skills to individuals with little or no swimming ability. Students who repeat this course will improve skills through further instruction and practice.

PE-A 8C — Swimming - Advanced
.5 to 1 Unit
Degree Applicable, CSU, UC
(May be taken four times for credit)
(May be taken for option of letter grade or Pass/No Pass)
36 to 54 hours activity
Prerequisite: Demonstrate proficiency equivalent to Level IV Swimming Test
Designed to offer aquatic techniques of an advanced level and to refine the skills of the competent swimmer. Students who repeat this course will improve skills through further instruction and practice.

PE-A 10 — Springboard Diving
.5 to 1 Unit
Degree Applicable, CSU, UC
(May be taken four times for credit)
(May be taken for option of letter grade or Pass/No Pass)
36 to 54 hours activity
Student must possess above average diving ability or experience in tumbling or gymnastics. Individualized instruction in the fundamentals and techniques of springboard diving. Students who repeat this course will improve skills through further instruction and practice.

PE-A 14 — Water Polo
.5 to 1 Unit
Degree Applicable, CSU, UC
(May be taken four times for credit)
(May be taken for option of letter grade or Pass/No Pass)
36 to 54 hours activity
Fundamental water polo skills including conditioning, drills, and game situations. Students who repeat this course will improve skills through further instruction and practice.

PE-A 16 — Water Safety Instructor
2 Units
(CAN PE10)
Degree Applicable, CSU, UC
(May be taken four times for credit)
108 hours activity
Prerequisite: 1) 17 years of age or older at the start of the course; 2) Demonstrates proficiency equivalent to Level VI of the American Red Cross Learn to Swim Program; 3) Demonstrates skills on a proficiency test. The course will allow for renewal of certificate and improve skills through further instruction and practice.

PE-A 20 — Aquatic Fitness
.5 to 1 Unit
Degree Applicable, CSU, UC
(May be taken four times for credit)
(May be taken for option of letter grade or Pass/No Pass)
36 to 54 hours activity
Student must be able to perform front crawl 50 yards. Designed to improve and maintain aquatic fitness. Emphasis on building strength, endurance and cardiovascular fitness. Students who repeat this course will improve skills through further instruction and practice.

PE-A 21 — Aqua Aerobics
.5 to 1 Unit
Degree Applicable, CSU, UC
(May be taken for option of letter grade or Pass/No Pass)
36 to 54 hours activity
Designed to improve cardiovascular endurance, strength, agility, flexibility and general fitness through the mode of dynamic movement in the water. Appropriate for swimmers and nonswimmers. Students who repeat this course will improve skills through further instruction and practice.

PHYSICAL EDUCATION: ATHLETICS

Cluster repeatability:
Credit students are limited to enroll up to 4 times only for any combination of courses within a designated cluster, regardless of the individual course unit values. Clusters:
- PE-X 8A, PE-X 8B
- PE-X 10A, PE-X 10B

PE-X 6 — Baseball - Men
2 Units
Degree Applicable, CSU, UC
(May be taken for option of letter grade or Pass/No Pass)
180 hours activity
Enrollment is limited to team candidates and includes a minimum of 10 hours per week practice and intercollegiate competition. Students who repeat this course will improve skills through further instruction and practice.

PE-X 8A — Basketball - Men
1 Unit
Degree Applicable, CSU, UC
(May be taken four times for credit)
(May be taken for option of letter grade or Pass/No Pass)
90 hours activity
Intended for Men's Intercollegiate Basketball Team candidates to provide instruction in the components of training and conditioning related to the sport of basketball. Students who repeat this course will improve skills through further instruction and practice.

PE-X 8B — Basketball - Men
1 Unit
Degree Applicable, CSU, UC
(May be taken four times for credit)
(May be taken for option of letter grade or Pass/No Pass)
90 hours activity
Advisory: PE-X 8A
Intended for Men's Intercollegiate Basketball Team candidates to provide instruction in the components of training and conditioning related to the sport of basketball. Students who repeat this course will improve skills through further instruction and practice.
PE-X 10A — Basketball - Women 1 Unit  
Degree Applicable, CSU, UC  
(May be taken four times for credit)  
(May be taken for option of letter grade or Pass/No Pass)  
90 hours activity  
Intended for 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.

PE-X 10B — Basketball - Women 1 Unit  
Degree Applicable, CSU, UC  
(May be taken four times for credit)  
(May be taken for option of letter grade or Pass/No Pass)  
90 hours activity  
Advisory: PE-X 10A  
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.

PE-X 11 — Cross Country - Men 2 Units  
Degree Applicable, CSU, UC  
(May be taken four times for credit)  
(May be taken for option of letter grade or Pass/No Pass)  
180 hours activity  
Designed for Men’s Intercollegiate Cross Country team candidates and provides instruction in the components of training and conditioning related to the sport of cross country. Students who repeat this course will improve skills through further instruction and practice.

PE-X 12 — Cross Country - Women 2 Units  
Degree Applicable, CSU, UC  
(May be taken four times for credit)  
(May be taken for option of letter grade or Pass/No Pass)  
180 hours activity  
Designed for Women’s Intercollegiate Cross Country team candidates and provides instruction in the components of training and conditioning related to the sport of cross country. Students who repeat this course will improve skills through further instruction and practice.

PE-X 16 — Football - Men 2 Units  
Degree Applicable, CSU, UC  
(May be taken four times for credit)  
(May be taken for option of letter grade or Pass/No Pass)  
180 hours activity  
Designed for Men’s Intercollegiate Football team candidates and provides instruction in the components of training and conditioning related to the sport of football. Students who repeat this course will improve skills through further instruction and practice.

PE-X 18 — Golf - Men 2 Units  
Degree Applicable, CSU, UC  
(May be taken four times for credit)  
(May be taken for option of letter grade or Pass/No Pass)  
180 hours activity  
Designed for Men’s Intercollegiate Golf Team candidates and provides instruction in the components and training related to the sport of golf. Classes will be held off campus and require some traveling. Students who repeat this course will improve skills through further instruction and practice. Students must have their own golf clubs.

PE-X 19 — Golf - Women 2 Units  
Degree Applicable, CSU, UC  
(May be taken four times for credit)  
(May be taken for option of letter grade or Pass/No Pass)  
180 hours activity  
Designed for Women’s Intercollegiate Golf Team candidates and provides instruction in the components and training related to the sport of golf. Classes will be held off campus and require some traveling. Students who repeat this course will improve skills through further instruction and practice. Students must have their own golf clubs.

PE-X 20 — Tennis - Men 2 Units  
Degree Applicable, CSU, UC  
(May be taken four times for credit)  
(May be taken for option of letter grade or Pass/No Pass)  
180 hours activity  
Designed for Men’s Intercollegiate Tennis Team candidates and provides instruction in the components and training related to the sport of tennis. Students who repeat this course will improve skills through further instruction and practice.

PE-X 21 — Tennis - Women 2 Units  
Degree Applicable, CSU, UC  
(May be taken four times for credit)  
(May be taken for option of letter grade or Pass/No Pass)  
180 hours activity  
Designed for Women’s Intercollegiate Tennis Team candidates and provides instruction in the components and training related to the sport of tennis. Students who repeat this course will improve skills through further instruction and practice.

PE-X 25 — Soccer - Women 2 Units  
Degree Applicable, CSU, UC  
(May be taken four times for credit)  
(May be taken for option of letter grade or Pass/No Pass)  
180 hours activity  
Designed for Women’s Intercollegiate Soccer Team candidates and provides instruction in the components of training and conditioning related to the sport of soccer. Students who repeat this course will improve skills through further instruction and practice.

PE-X 26 — Softball - Women 2 Units  
Degree Applicable, CSU, UC  
(May be taken four times for credit)  
(May be taken for option of letter grade or Pass/No Pass)  
180 hours activity  
Designed for Women’s Softball Team candidates and provides instruction in the components of training and conditioning related to the sport of softball. Students who repeat this course will improve skills through further instruction and practice.

PE-X 28 — Swimming - Men 2 Units  
Degree Applicable, CSU, UC  
(May be taken four times for credit)  
(May be taken for option of letter grade or Pass/No Pass)  
180 hours activity  
Designed for Men’s Intercollegiate Swim Team candidates and provides instruction in the components of training and conditioning related to the sport of swimming. Students who repeat this course will improve skills through further instruction and practice.

PE-X 30 — Swimming - Women 2 Units  
Degree Applicable, CSU, UC  
(May be taken four times for credit)  
(May be taken for option of letter grade or Pass/No Pass)  
180 hours activity  
Designed for Women’s Intercollegiate Swim Team candidates and provides instruction in the components of training and conditioning related to the sport of swimming. Students who repeat this course will improve skills through further instruction and practice.

PE-X 32 — Tennis - Men 2 Units  
Degree Applicable, CSU, UC  
(May be taken four times for credit)  
(May be taken for option of letter grade or Pass/No Pass)  
180 hours activity  
Designed for Men’s Intercollegiate Tennis Team candidates and provides instruction in the components and training related to the sport of tennis. Students who repeat this course will improve skills through further instruction and practice.

PE-X 34 — Tennis - Women 2 Units  
Degree Applicable, CSU, UC  
(May be taken four times for credit)  
(May be taken for option of letter grade or Pass/No Pass)  
180 hours activity  
Designed for Women’s Intercollegiate Tennis Team candidates and provides instruction in the components and training related to the sport of tennis. Students who repeat this course will improve skills through further instruction and practice.

PE-X 38 — Track and Field - Men 2 Units  
Degree Applicable, CSU, UC  
(May be taken four times for credit)  
(May be taken for option of letter grade or Pass/No Pass)  
180 hours activity  
Designed for students wishing to compete and/or train in intercollegiate track and field. Students will participate in a minimum of 10 hours per week at practice and intercollegiate competition. Students who repeat this course will improve skills through further instruction and practice.
### Course Descriptions

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>PE-X 42</td>
<td>Track and Field - Women</td>
<td>2</td>
<td>Designed for students wishing to compete and/or train in intercollegiate track and field. Students will participate in a minimum of 10 hours per week at practice and intercollegiate competition. Students who repeat this course will improve skills through further instruction and practice.</td>
</tr>
<tr>
<td>PE-X 44</td>
<td>Volleyball - Men</td>
<td>2</td>
<td>Enrollment is limited to team candidates and includes a minimum of 10 hours per week of practice and intercollegiate competition. Students who repeat this course will improve skills through further instruction and practice.</td>
</tr>
<tr>
<td>PE-X 46</td>
<td>Volleyball - Women</td>
<td>2</td>
<td>Provides training and experience for members of pep squads or rally teams. Students who repeat this course will improve skills through further instruction and practice.</td>
</tr>
<tr>
<td>PE-X 48</td>
<td>Water Polo - Men</td>
<td>2</td>
<td>Designed for athletic team candidates in an off-season program. Students who repeat this course will improve skills through further instruction and practice.</td>
</tr>
<tr>
<td>PE-X 49</td>
<td>Water Polo - Women</td>
<td>2</td>
<td>Designed for athletic team candidates in an off-season program. Students who repeat this course will improve skills through further instruction and practice.</td>
</tr>
<tr>
<td>PE-X 50</td>
<td>Wrestling - Men</td>
<td>2</td>
<td>Provides training and experience for members of pep squads or rally teams. Students who repeat this course will improve skills through further instruction and practice.</td>
</tr>
<tr>
<td>PE-X 70</td>
<td>Pep Squad</td>
<td>2</td>
<td>Designed for athletic team candidates in an off-season program. Students who repeat this course will improve skills through further instruction and practice.</td>
</tr>
</tbody>
</table>

#### PHYSICAL EDUCATION: FITNESS

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>PE-F 2A</td>
<td>Body Building - Beginning</td>
<td>.5</td>
<td>Provides instruction in the components and conditioning related to the sport of wrestling. Students who repeat this course will improve through further instruction and practice.</td>
</tr>
<tr>
<td>PE-F 2B</td>
<td>Body Building - Advanced</td>
<td>.5</td>
<td>Provides instruction in the components and conditioning related to the sport of wrestling. Students who repeat this course will improve through further instruction and practice.</td>
</tr>
<tr>
<td>PE-F 4</td>
<td>Cardiovascular Conditioning</td>
<td>.5</td>
<td>Provides training and experience for members of pep squads or rally teams. Students who repeat this course will improve skills through further instruction and practice.</td>
</tr>
</tbody>
</table>

#### Cluster Repeatability:
- Credit students are limited to enroll up to 4 times only for any combination of courses within a designated cluster, regardless of the individual course unit values.
- Clusters:
  - PE-F 2A, PE-F 2B
  - PE-F 4A, PE-F 4B, PE-F 6C

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**Clusters:**
- PE-F 2A, PE-F 2B
- PE-F 4A, PE-F 4B, PE-F 6C

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**Pre-Season Athletics**
- .5 to 2 Units
- (May be taken four times for credit)
- (May be taken for option of letter grade or Pass/No Pass)
- 36 to 180 hours activity
- Pre-season intercollegiate athletics. Enrollment is limited to athletic team candidates and includes, sport specific aerobic and anaerobic conditioning, drill technique, strength conditioning, speed development and game play. Students who repeat this course will improve skills through further instruction and practice.

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**Off-Season Athletics**
- .5 to 2 Units
- (May be taken four times for credit)
- (May be taken for option of letter grade or Pass/No Pass)
- 36 to 180 hours activity
- Designed for athletic team candidates in an off-season program. Includes sport-specific training with the purpose of developing areas of individual weaknesses. Students who repeat this course will improve skills through further instruction and practice.

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**Degree Applicable, CSU, UC**

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**Degree Applicable, CSU**

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**Degree Applicable**
### Course Descriptions

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
<th>Degree Applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>PE-F 9</td>
<td>Conditioning for Sports</td>
<td>.5 to 1 Unit</td>
<td>Degree Applicable, CSU, UC</td>
</tr>
<tr>
<td>PE-F 10</td>
<td>Weight Training</td>
<td>.5 to 1 Unit</td>
<td>Degree Applicable, CSU, UC</td>
</tr>
<tr>
<td>PE-F 12</td>
<td>Fitness and Body Conditioning</td>
<td>.5 to 1 Unit</td>
<td>Degree Applicable, CSU, UC</td>
</tr>
<tr>
<td>PE-F 13</td>
<td>Exercise Dynamics</td>
<td>2 Units</td>
<td>Degree Applicable, CSU, UC</td>
</tr>
<tr>
<td>PE-F 17</td>
<td>Fitness Walking</td>
<td>.5 to 1 Unit</td>
<td>Degree Applicable, CSU, UC</td>
</tr>
<tr>
<td>PE-F 18</td>
<td>Fitness Fundamentals</td>
<td>2 Units</td>
<td>Degree Applicable, CSU, UC</td>
</tr>
<tr>
<td>PE-F 19</td>
<td>Strength Training</td>
<td>2 Units</td>
<td>Degree Applicable, CSU, UC</td>
</tr>
<tr>
<td>PE-F 20</td>
<td>Total Fitness</td>
<td>2 Units</td>
<td>Degree Applicable, CSU, UC</td>
</tr>
<tr>
<td>PE-F 25</td>
<td>Core Performance and Foundation Movement</td>
<td>2 Units</td>
<td>Degree Applicable, CSU, UC</td>
</tr>
<tr>
<td>PE-F 30</td>
<td>Baseline Fitness Assessment</td>
<td>.25 Unit</td>
<td>Degree Applicable, CSU</td>
</tr>
<tr>
<td>PE-F 31</td>
<td>Fitness Testing</td>
<td>1 Unit</td>
<td>Degree Applicable, CSU</td>
</tr>
<tr>
<td>PE-F 32</td>
<td>Cardiorespiratory Training</td>
<td>.5 to 2 Units</td>
<td>Degree Applicable, CSU, UC</td>
</tr>
<tr>
<td>PE-F 35</td>
<td>Circuit Training</td>
<td>.5 to 2 Units</td>
<td>Degree Applicable, CSU, UC</td>
</tr>
<tr>
<td>PE-F 36</td>
<td>Aerobics</td>
<td>.5 to 2 Units</td>
<td>Degree Applicable, CSU, UC</td>
</tr>
<tr>
<td>PE-F 37</td>
<td>Physical Skills Preparation for Administration of Justice and Fire Technology</td>
<td>2 Units</td>
<td>Degree Applicable, CSU</td>
</tr>
</tbody>
</table>

*Course descriptions include objectives, course structure, and credit requirements.*
## Course Descriptions

### PE-F 51 — Agility Testing Preparation
Degree Applicable, CSU

- May be taken four times for credit
- May be taken for option of letter grade or Pass/No Pass
- 71 hours activity

Students who repeat this course will improve skills through further instruction and practice.

### PE-F 52 — Fitness and Conditioning for Administrators of Justice, Fire Technology, and Forestry
Degree Applicable, CSU

- May be taken four times for credit
- May be taken for option of letter grade or Pass/No Pass
- 71 hours activity

A conditioning program to maintain strength, agility, cardiovascular fitness and flexibility necessary to perform the tasks required of personnel in fields of law enforcement, fire science and forestry. Students who repeat this course will improve skills through further instruction and practice.

### PE-F 53 — Physical Training for the Basic Fire Academy
Degree Applicable, CSU

- May be taken four times for credit
- May be taken for option of letter grade or Pass/No Pass
- 68 hours activity
- 68 hours lecture

Prepare the Basic Fire Academy student for the physical demands of the fire service. Through a supervised individualized training program, the student will acquire cardiovascular endurance, flexibility and strength. Students who repeat this course will improve skills through further instruction and practice.

### PE-F 59 — Firefighter Physical Ability Test
Not Degree Applicable

- May be taken four times for credit
- May be taken for Pass/No Pass only
- 2 hours activity

Administration of physical ability test examination. Includes nutrition, safety, body mechanics, exercise guidelines and execution of fire-related tasks. Successful completion of this course is required by various fire agencies for employment. Students must obtain test packet from website: firepat.mtsac.edu prior to enrolling. Repeating this course will allow for renewal of certificate and improvement of technique through further instruction and practice.

### PE-I 1 — Rock Climbing
Degree Applicable, CSU

- May be taken for option of letter grade or Pass/No Pass
- 36 to 54 hours activity

Instruction for the golfer with previous golf experience. Includes putting, game management, club selection, and principles of the swing. Students who repeat this course will improve proficiency as a result of continued instruction and practice.

### PE-I 4A — Badminton - Beginning
Degree Applicable, CSU

- May be taken for option of letter grade or Pass/No Pass
- 36 to 54 hours activity

Beginning badminton fundamentals and techniques, including singles and doubles play. Students who repeat this course will improve their skills through further instruction and practice.

### PE-I 4B — Badminton - Intermediate
Degree Applicable, CSU

- May be taken for option of letter grade or Pass/No Pass
- 36 to 54 hours activity

Intermediate badminton techniques, including singles and doubles play. Students who repeat this course will improve their skills through further instruction and practice.

### PE-I 4C — Badminton - Advanced
Degree Applicable, CSU

- May be taken for option of letter grade or Pass/No Pass
- 36 to 54 hours activity

Advanced badminton techniques, including singles and doubles tournament play. Students who repeat this course will improve their skills through further instruction and practice.

### PE-I 18A — Golf - Beginning
Degree Applicable, CSU, UC

- May be taken for option of letter grade or Pass/No Pass
- 36 to 54 hours activity

Basic fundamentals of golf. Emphasis on technique, strategy, and rules. Students who repeat this course will improve skills through further instruction and practice.

### PE-I 18B — Golf - Intermediate
Degree Applicable, CSU, UC

- May be taken for option of letter grade or Pass/No Pass
- 36 to 54 hours activity

Instruction for the golfer with previous golf experience. Includes putting, game management, club selection, and principles of the swing. Students who repeat this course will improve their skills through further instruction and practice.

### PE-I 18C — Golf - 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 proficient golfer (Sub 15 Handicap). Emphasis on golf swing analysis. Golf classes will be held at sites both on and off the Mt. SAC campus. Golf clubs required. Students who repeat this course will improve skills through further instruction and practice.

### PE-I 27A — Jeet Kune Do - Beginning
Degree Applicable, CSU

- May be taken for option of letter grade or Pass/No Pass
- 36 to 54 hours activity

Fundamentals and principles of Bruce Lee’s martial art. Emphasis on footwork, distance, and technique for combat efficiency in self-defense. Students who repeat this course will improve proficiency as a result of continued instruction and practice.

### PE-I 27B — Jeet Kune Do - Intermediate
Degree Applicable, CSU

- May be taken for option of letter grade or Pass/No Pass
- 36 to 54 hours activity

Intermediate principles of Bruce Lee’s martial art. Intermediate level footwork, distance, and technique (punching, kicking, and grappling) for combat efficiency. Students who repeat this course will improve proficiency as a result of continued instruction and practice.
### Course Descriptions

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>PE-I 28</td>
<td>Racquetball</td>
<td>1 Unit</td>
<td>Degree Applicable, CSU, UC</td>
</tr>
<tr>
<td></td>
<td>(May be taken four times for credit)</td>
<td></td>
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</tr>
<tr>
<td>PE-I 29</td>
<td>Self Defense/Martial Arts</td>
<td>.5 to 1 Unit</td>
<td>Degree Applicable, CSU, UC</td>
</tr>
<tr>
<td></td>
<td>(May be taken four times for credit)</td>
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</tr>
<tr>
<td>PE-I 30A</td>
<td>Filipino Martial Arts - Beginning</td>
<td>.5 to 1 Unit</td>
<td>Degree Applicable, CSU, UC</td>
</tr>
<tr>
<td></td>
<td>(May be taken four times for credit)</td>
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</tr>
<tr>
<td>PE-I 30B</td>
<td>Filipino Martial Arts - Intermediate</td>
<td>.5 to 1 Unit</td>
<td>Degree Applicable, CSU, UC</td>
</tr>
<tr>
<td></td>
<td>(May be taken four times for credit)</td>
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</tr>
<tr>
<td>PE-I 31A</td>
<td>Jujitsu - Beginning</td>
<td>.5 to 1 Unit</td>
<td>Degree Applicable, CSU, UC</td>
</tr>
<tr>
<td></td>
<td>(May be taken four times for credit)</td>
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<tr>
<td>PE-I 31B</td>
<td>Jujitsu - Intermediate</td>
<td>.5 to 1 Unit</td>
<td>Degree Applicable, CSU, UC</td>
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<tr>
<td></td>
<td>(May be taken four times for credit)</td>
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</tr>
<tr>
<td>PE-I 33</td>
<td>Kickboxing</td>
<td>.5 to 1 Unit</td>
<td>Degree Applicable, CSU, UC</td>
</tr>
<tr>
<td></td>
<td>(May be taken four times for credit)</td>
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<tr>
<td>PE-I 34</td>
<td>Women's Self Defense</td>
<td>.5 to 1 Unit</td>
<td>Degree Applicable, CSU, UC</td>
</tr>
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<td>(May be taken four times for credit)</td>
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</tr>
<tr>
<td>PE-I 35</td>
<td>Karate</td>
<td>.5 to 1 Unit</td>
<td>Degree Applicable, CSU, UC</td>
</tr>
<tr>
<td></td>
<td>(May be taken four times for credit)</td>
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</tr>
<tr>
<td>PE-I 37A</td>
<td>Tai Chi Chuan - Beginning</td>
<td>.5 to 1 Unit</td>
<td>Degree Applicable, CSU, UC</td>
</tr>
<tr>
<td></td>
<td>(May be taken four times for credit)</td>
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</tr>
<tr>
<td>PE-I 37B</td>
<td>Tai Chi Chuan - Intermediate</td>
<td>.5 to 1 Unit</td>
<td>Degree Applicable, CSU, UC</td>
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<td></td>
<td>(May be taken four times for credit)</td>
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<tr>
<td>PE-I 38</td>
<td>Skiing Skills</td>
<td>1 Unit</td>
<td>Degree Applicable, CSU, UC</td>
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<td>(May be taken four times for credit)</td>
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<tr>
<td>PE-I 39A</td>
<td>Alpine Skiing</td>
<td>54 hours</td>
<td>Degree Applicable, CSU, UC</td>
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<td>(May be taken four times for credit)</td>
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<tr>
<td>PE-I 40A</td>
<td>Tennis - Beginning</td>
<td>.5 to 1 Unit</td>
<td>Degree Applicable, CSU, UC</td>
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<td>(May be taken four times for credit)</td>
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<tr>
<td>PE-I 40B</td>
<td>Tennis - Intermediate</td>
<td>.5 to 1 Unit</td>
<td>Degree Applicable, CSU, UC</td>
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<td></td>
<td>(May be taken four times for credit)</td>
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</tr>
</tbody>
</table>

#### Course Descriptions

- **Racquetball (PE-I 28)**
  - Degree Applicable, CSU, UC
  - (May be taken four times for credit)
  - 36 to 54 hours activity
  - Racquetball fundamentals, skills and game play. Students who repeat this course will improve skills through further instruction and practice.

- **Self Defense/Martial Arts (PE-I 29)**
  - .5 to 1 Unit
  - Degree Applicable, CSU, UC
  - (May be taken four times for credit)
  - 36 to 54 hours activity
  - Basic concepts of self defense and martial arts. Covers technique in three ranges of combat: grappling, kick/punch, and weapons range. Students who repeat this course will improve skills through further instruction and practice.

- **Filipino Martial Arts - Beginning (PE-I 30A)**
  - .5 to 1 Unit
  - Degree Applicable, CSU, UC
  - (May be taken four times for credit)
  - 36 to 54 hours activity
  - Filipino martial arts of Eskrima and Arnis. Basic weapons training for defense in armed and unarmed scenarios. Students who repeat this course will improve skills through further instruction.

- **Filipino Martial Arts - Intermediate (PE-I 30B)**
  - .5 to 1 Unit
  - Degree Applicable, CSU, UC
  - (May be taken four times for credit)
  - 36 to 54 hours activity
  - The Filipino martial arts of Eskrima and Arnis. Intermediate armed, unarmed and edged weapons training. Students who repeat this course will improve skills through further instruction and practice.

- **Jujitsu - Beginning (PE-I 31A)**
  - .5 to 1 Unit
  - Degree Applicable, CSU, UC
  - (May be taken four times for credit)
  - 36 to 54 hours activity
  - Fundamentals of Brazilian Jujitsu. Basic positions, breakfalls, training techniques, strategy, finishing holds, competition and philosophy. Students who repeat this course will improve skills through further instruction and practice. Students are required to provide their own Judo/Jujitsu gi uniform.

- **Jujitsu - Intermediate (PE-I 31B)**
  - .5 to 1 Unit
  - Degree Applicable, CSU, UC
  - (May be taken four times for credit)
  - 36 to 54 hours activity
  - Intermediate Brazilian Jujitsu. Progressions in positions, breakfalls, training techniques, strategy, finishing holds, competition and philosophy. Students who repeat this course will improve their skills through further instruction and practice. Students are required to provide their own Judo/Jujitsu gi uniform.

- **Kickboxing (PE-I 33)**
  - .5 to 1 Unit
  - Degree Applicable, CSU, UC
  - (May be taken four times for credit)
  - 36 to 54 hours activity
  - Presents the martial sport of kickboxing. Includes basic techniques for offense and defense, cardiovascular endurance, strategy and training modes. Students who repeat this course will improve skills through further instruction and practice.

- **Women’s Self Defense (PE-I 34)**
  - .5 to 1 Unit
  - Degree Applicable, CSU, UC
  - (May be taken four times for credit)
  - 36 to 54 hours activity
  - Techniques for personal protection and safety with emphasis on defensive tactics for women. Students who repeat this course will improve skills through further instruction and practice.

- **Karate (PE-I 35)**
  - .5 to 1 Unit
  - Degree Applicable, CSU, UC
  - (May be taken four times for credit)
  - 36 to 54 hours activity
  - Fundamentals of traditional karate. Includes form, technique, history and philosophy. Students who repeat this course will improve skills through further instruction and practice.

- **Tai Chi Chuan - Beginning (PE-I 37A)**
  - .5 to 1 Unit
  - Degree Applicable, CSU, UC
  - (May be taken four times for credit)
  - 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. Students who repeat this course will improve skills through further instruction and practice.

- **Tai Chi Chuan - Intermediate (PE-I 37B)**
  - .5 to 1 Unit
  - Degree Applicable, CSU, UC
  - (May be taken four times for credit)
  - 36 to 54 hours activity
  - Intermediate Tai Chi Chuan fundamentals and principles. Includes instruction in a traditional long form. Students who repeat this course will improve skills through further instruction and practice.

- **Tai Chi Chuan - Advanced (PE-I 37C)**
  - .5 to 1 Unit
  - Degree Applicable, CSU, UC
  - (May be taken four times for credit)
  - 36 to 54 hours activity
  - Instruction and practice for the experienced Tai Chi Chuan practitioner. Emphasis will be on the sword form. Students who repeat this course will improve skills through further instruction and practice.

- **Skiing Skills (PE-I 38)**
  - 1 Unit
  - Degree Applicable, CSU, UC
  - (May be taken four times for credit)
  - 36 to 54 hours activity
  - Alpine skiing skills, from novice to expert. Topics include purchasing, caring and using of equipment. Focuses on sport specific physical conditioning to develop muscular strength, endurance and flexibility, mountain procedures and safety. Ski trips are mandatory and at the student’s expense. Students who repeat this course will improve their skills through further instruction and practice.

- **Tennis - Beginning (PE-I 40A)**
  - .5 to 1 Unit
  - Degree Applicable, CSU, UC
  - (May be taken four times for credit)
  - 36 to 54 hours activity
  - Beginning tennis fundamentals and techniques. Students who repeat this course will improve skills through further instruction and practice.

- **Tennis - Intermediate (PE-I 40B)**
  - .5 to 1 Unit
  - Degree Applicable, CSU, UC
  - (May be taken four times for credit)
  - 36 to 54 hours activity
  - Intermediate tennis techniques and strategies for the individual who has previous experience and instruction in tennis. Students who repeat this course will improve skills through further instruction and practice.
## Course Descriptions

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>PE-I 52</td>
<td>Individual Sports</td>
<td>Fundamentals of Iyengar yoga. Basic postures, alignments, strategy, history and philosophy. Students who repeat this course will improve their skills through further instruction and practice.</td>
</tr>
<tr>
<td>PE-I 50A</td>
<td>Yoga</td>
<td>Designed for individuals with previous experience in advanced techniques and strategies of yoga. Students who repeat this course will improve their skills through further instruction and practice.</td>
</tr>
<tr>
<td>PE-I 40C</td>
<td>Tennis - Advanced</td>
<td>Degree Applicable, CSU, UC. Students who repeat this course will improve their skills through further instruction and practice.</td>
</tr>
<tr>
<td>PE-I 44</td>
<td>Track and Field</td>
<td>Degree Applicable, CSU, UC. Basic instruction, conditioning and training for the various track and field events. Students who repeat this course will improve their skills through further instruction and practice.</td>
</tr>
<tr>
<td>PE-I 48</td>
<td>Wrestling</td>
<td>Degree Applicable, CSU, UC. Wrestling skills, fundamentals and match competition. Students who repeat this course will improve their skills through further instruction and practice.</td>
</tr>
<tr>
<td>PE-I 35</td>
<td>Football</td>
<td>Degree Applicable, CSU, UC. Basic rules and strategies for team play in football. Students who repeat this course will improve their skills through further instruction and practice.</td>
</tr>
<tr>
<td>PE-I 30A</td>
<td>Volleyball</td>
<td>Degree Applicable, CSU, UC. Basic rules and strategies for team play in volleyball. Students who repeat this course will improve their skills through further instruction and practice.</td>
</tr>
<tr>
<td>PE-S 10</td>
<td>Soccer</td>
<td>Degree Applicable, CSU, UC. Soccer skills, fundamentals and game play. Students who repeat this course will improve their skills through further instruction and practice.</td>
</tr>
<tr>
<td>PE-S 12</td>
<td>Baseball</td>
<td>Degree Applicable, CSU, UC. Basic skills, rules and strategies for team play in baseball. Students who repeat this course will improve their skills through further instruction and practice.</td>
</tr>
<tr>
<td>PE-S 14</td>
<td>Track and Field</td>
<td>Degree Applicable, CSU, UC. Basic skills, fundamentals, rules and strategies for team play in track and field events. Students who repeat this course will improve their skills through further instruction and practice.</td>
</tr>
<tr>
<td>PE-S 24A</td>
<td>Volleyball - Beginning</td>
<td>Degree Applicable, CSU, UC. Basic techniques and strategies of volleyball. Students who repeat this course will improve their skills through further instruction and practice.</td>
</tr>
<tr>
<td>PE-S 24B</td>
<td>Volleyball - Intermediate</td>
<td>Degree Applicable, CSU, UC. Designed for individuals with previous experience in advanced techniques and strategies of volleyball. Students who repeat this course will improve their skills through further instruction and practice.</td>
</tr>
<tr>
<td>PE-S 24C</td>
<td>Volleyball - Advanced</td>
<td>Degree Applicable, CSU, UC. Designed for individuals with previous experience in advanced techniques and strategies of volleyball. Students who repeat this course will improve their skills through further instruction and practice.</td>
</tr>
</tbody>
</table>

### PHYSICAL EDUCATION: TEAM SPORT

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>PE-S 10</td>
<td>Soccer</td>
<td>Degree Applicable, CSU, UC. Soccer skills, fundamentals and game play. Students who repeat this course will improve their skills through further instruction and practice.</td>
</tr>
<tr>
<td>PE-S 12</td>
<td>Baseball</td>
<td>Degree Applicable, CSU, UC. Basic skills, rules and strategies for team play in baseball. Students who repeat this course will improve their skills through further instruction and practice.</td>
</tr>
<tr>
<td>PE-S 14</td>
<td>Track and Field</td>
<td>Degree Applicable, CSU, UC. Basic skills, fundamentals, rules and strategies for team play in track and field events. Students who repeat this course will improve their skills through further instruction and practice.</td>
</tr>
<tr>
<td>PE-S 24A</td>
<td>Volleyball - Beginning</td>
<td>Degree Applicable, CSU, UC. Basic techniques and strategies of volleyball. Students who repeat this course will improve their skills through further instruction and practice.</td>
</tr>
<tr>
<td>PE-S 24B</td>
<td>Volleyball - Intermediate</td>
<td>Degree Applicable, CSU, UC. Designed for individuals with previous experience in advanced techniques and strategies of volleyball. Students who repeat this course will improve their skills through further instruction and practice.</td>
</tr>
<tr>
<td>PE-S 24C</td>
<td>Volleyball - Advanced</td>
<td>Degree Applicable, CSU, UC. Designed for individuals with previous experience in advanced techniques and strategies of volleyball. Students who repeat this course will improve their skills through further instruction and practice.</td>
</tr>
<tr>
<td>PE-S 18</td>
<td>Indoor Soccer</td>
<td>Degree Applicable, CSU, UC. Indoor soccer skills, fundamentals and game play. Students who repeat this course will improve their skills through further instruction and practice.</td>
</tr>
<tr>
<td>PE-S 19</td>
<td>Team Sports</td>
<td>Degree Applicable, CSU, UC. Instruction in the skills, techniques, and strategies of game play in one or more team sports. Students who repeat this course will improve their skills through further instruction and practice.</td>
</tr>
</tbody>
</table>

### Cluster repeatability:
Credit students are limited to enroll up to 4 times only for any combination of courses within a designated cluster, regardless of the individual course unit values.

Clusters:
- PE-S 24A, PE-S 24B, PE-S 24C
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Degree Applicable, CSU, UC</th>
</tr>
</thead>
<tbody>
<tr>
<td>PE 3</td>
<td>First Aid and CPR</td>
<td>3</td>
<td>Degree Applicable, CSU, UC</td>
</tr>
<tr>
<td></td>
<td>54 hours lecture</td>
<td></td>
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<tr>
<td></td>
<td>Advisory: Eligibility for ENGL 68</td>
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<tr>
<td></td>
<td>Provides training, including laboratory experience</td>
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<td></td>
<td>in caring for victims of injuries, sudden illness</td>
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<tr>
<td></td>
<td>and other medical emergencies; includes</td>
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<td>Community CPR. Students who successfully pass</td>
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<td></td>
<td>all requirements, will earn the appropriate</td>
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<tr>
<td></td>
<td>American Red Cross First Aid Certificate and/or</td>
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<tr>
<td></td>
<td>CPR Certificate</td>
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<tr>
<td>PE 5</td>
<td>Advanced First Aid/ CPR/Emergency Response</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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<td></td>
<td>Provides training and certifications, including</td>
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<td>laboratory experience for developing the First</td>
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<td></td>
<td>Aid and CPR skills required by public safety</td>
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<td>personnel, athletic trainers, emergency response</td>
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<td>team members, flight attendants, coaches and</td>
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<td>nurses. Students who successfully pass all</td>
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<td></td>
<td>requirements will receive an American Red Cross</td>
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<td></td>
<td>First Aid Certificate in Emergency Response and/</td>
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<td></td>
<td>or CPR for the Professional Rescuer.</td>
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<tr>
<td>PE 10</td>
<td>Fundamentals of Sport</td>
<td>2</td>
<td>Degree Applicable, CSU, UC</td>
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<tr>
<td></td>
<td>36 hours lecture</td>
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<tr>
<td></td>
<td>Instruction in the theory and technique of</td>
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<td></td>
<td>various selected sports: Basketball, Baseball,</td>
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<td></td>
<td>Cross Country, Football, Golf, Soccer, Softball,</td>
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<td></td>
<td>Swimming, Tennis, Track and Field, Volleyball,</td>
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<td></td>
<td>Water Polo and/or Wrestling.</td>
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<tr>
<td>PE 13</td>
<td>Sports Officiating</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>Introduction to rules, regulations and career</td>
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<tr>
<td></td>
<td>opportunities of various team and individual</td>
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<tr>
<td></td>
<td>sports.</td>
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<tr>
<td>PE 15</td>
<td>Administration of Fitness Programs</td>
<td>2</td>
<td>Degree Applicable</td>
</tr>
<tr>
<td></td>
<td>36 hours lecture</td>
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<tr>
<td></td>
<td>Provides leadership training and administrative</td>
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<td></td>
<td>skills related to fitness specialists, personal</td>
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<tr>
<td></td>
<td>trainers and physical educators. Students will</td>
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<td></td>
<td>explore curriculum topics and practical skills</td>
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<td>related to careers in fitness and physical</td>
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<tr>
<td></td>
<td>education.</td>
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<tr>
<td>PE 17</td>
<td>Introduction to Physical Education</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>Introduction and orientation to physical</td>
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<tr>
<td></td>
<td>education as a profession and academic discipline.</td>
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<td></td>
<td>Explores sub-disciplines, opportunities in the</td>
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<td></td>
<td>field, philosophy, scientific basis and analysis.</td>
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<tr>
<td>PE 19</td>
<td>Introduction to Care/Prevention of Activity/</td>
<td>3</td>
<td>Degree Applicable, CSU, UC</td>
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<tr>
<td></td>
<td>Sports-Related Injuries</td>
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<td></td>
<td>54 hours lecture</td>
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<tr>
<td></td>
<td>Instruction, including laboratory experience, in</td>
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<td></td>
<td>the techniques and procedures for prevention and</td>
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<td></td>
<td>treatment of activity and sports-related injuries.</td>
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<td></td>
<td>Includes the responsibilities of the athletic</td>
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<td>trainer, policies and procedures of the athletic</td>
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<td>training room and the operation of</td>
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<td></td>
<td>rehabilitative modalities.</td>
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<tr>
<td>PE 24</td>
<td>Kinesiology</td>
<td>2</td>
<td>Degree Applicable, CSU, UC</td>
</tr>
<tr>
<td></td>
<td>(May be taken for option of letter grade or Pass/</td>
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<tr>
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<td>No Pass)</td>
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<td>36 hours lecture</td>
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<td>The study of movement as it relates to exercise</td>
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<td></td>
<td>and the interrelationships of body segments</td>
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<td>involved in human movement activity, actions of</td>
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<td>joints, nerves and muscle exercise.</td>
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<td>PE 33</td>
<td>Fitness Assessment</td>
<td>.5</td>
<td>Degree Applicable, CSU, UC</td>
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<td>(May be taken for option of letter grade or Pass/</td>
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<td>An integrated approach to healthy lifestyles.</td>
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<td>Includes pre and post fitness assessments, basic</td>
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<td>nutrition analysis, lifestyle behaviors and</td>
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<td>stress management. Interpretation of results</td>
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<td>includes goal-setting principles and development</td>
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<td></td>
<td>of basic exercise program.</td>
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<td>PE 34</td>
<td>Fitness for Living</td>
<td>3</td>
<td>Degree Applicable, CSU, UC</td>
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<td>54 hours lecture</td>
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<td>Theory of basic physiological concepts as they</td>
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<td>pertain to exercise training and the prescription</td>
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<td></td>
<td>of individual fitness programs.</td>
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<td>PE 38</td>
<td>Physiology of Exercise</td>
<td>3</td>
<td>Degree Applicable, CSU, UC</td>
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<td>54 hours lecture</td>
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<td>pertain to exercise training and the prescription</td>
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<td>of individual fitness programs.</td>
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<td>PE 39</td>
<td>Techniques of Fitness Testing</td>
<td>2</td>
<td>Degree Applicable, CSU, UC</td>
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<td>(May be taken for option of letter grade or Pass/</td>
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<td>36 hours lecture</td>
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<td></td>
<td>Theory and technique of performing fitness testing</td>
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<td></td>
<td>, assessment, evaluation, and recommendation.</td>
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<td>Includes related laboratory experience and</td>
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<td>practical applications.</td>
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<td>PE 40</td>
<td>Techniques of Teaching Cardiovascular Exercise</td>
<td>2</td>
<td>Degree Applicable, CSU, UC</td>
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<td>(May be taken for option of letter grade or Pass/</td>
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<td>36 hours lecture</td>
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<td></td>
<td>Overview of the principles and techniques of</td>
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<td></td>
<td>teaching cardiovascular exercise. Includes both</td>
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<td>theory and practical instruction of</td>
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<td></td>
<td>cardiovascular exercise, special needs</td>
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<td>considerations, professional responsibilities</td>
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<td>and liabilities, group exercise design,</td>
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<td>treadmill, cycling and varieties of</td>
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<td></td>
<td>cardiovascular exercise.</td>
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<td>PE 41</td>
<td>Techniques of Teaching Weight Training</td>
<td>2</td>
<td>Degree Applicable, CSU, UC</td>
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<td>(May be taken for option of letter grade or Pass/</td>
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<td>36 hours lecture</td>
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<td>Overview of the principles and techniques</td>
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<td>of teaching weight training. Includes muscle</td>
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<td>structure and function, training sequences, free</td>
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<td>weight and machine equipment, safety factors,</td>
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<td>including contraindications for exercise.</td>
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<td>PE 44</td>
<td>Theory of Coaching</td>
<td>3</td>
<td>Degree Applicable, CSU, UC</td>
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<td>54 hours lecture</td>
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<td>Designated for coaches at varying levels from</td>
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<td>youth league to high school varsity. Focuses on</td>
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<td>coaching issues and problems facing the coach</td>
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<td>today and includes the philosophy, theory, and</td>
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<td>principles of developing and maintaining an</td>
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<td>athletic program.</td>
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<td>PE 48</td>
<td>Lifeguard Training</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: Ability to swim 500 yards without</td>
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<td>stopping American Red Cross requirements for</td>
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<td>Lifeguard Training. To receive certification,</td>
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<td>students must pass written exams with a minimum</td>
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<td>of 80% and pass all practical skills tests.</td>
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<td>Students who meet all qualifications will be</td>
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<td>certified by the American Red Cross in Lifeguard</td>
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<td>Training, First Aid and C.P.R for the Professional</td>
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<td>PE 50</td>
<td>Academ y Entrance Exam</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>9 hours lecture</td>
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<td>9 hours activity</td>
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<td>Physical ability examination specifically</td>
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<td>designed for candidates seeking admission into</td>
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<td>the Mt. SAC Fire Academy. Candidates must be</td>
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<td>approved by the Fire Technology Office prior to</td>
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<td>registration.</td>
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Course Descriptions

**PE 81 — Work Experience for Coaching** 2 Units  
(May be taken four times for credit)  
(May be taken for option of letter grade or Pass/No Pass)  
150 hours lab  
Provides coaches and physical education students with on-the-job experience in approved worksites related to classroom instruction. A minimum of 5 hours per week of supervised work (minimum 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. Students who repeat this course will improve skills through further instruction and practice.

**PE 85 — Fitness Internship** 1 Unit  
(May be taken four times for credit)  
(May be taken for option of letter grade or Pass/No Pass)  
75 hours lab  
Provides fitness specialist students with actual on-the-job skill development in fitness testing, analysis and prescription. A minimum of 75 paid or 60 non-paid clock hours per semester of supervised work is required for each unit of credit. It is recommended that the hours per week be equally distributed throughout the semester. Work experience placement is not guaranteed, but assistance is provided by the Fitness Certificate faculty advisor. Students who repeat this course will improve skills through further instruction and practice.

**PE 92 — Work Experience - Athletic Training** 2 Units  
(May be taken four times for credit)  
160 hours lab  
Provides Athletic Trainer Aides and physical education students with actual on-the-job experience in an approved worksite related to classroom instruction. A minimum of 75 paid or 60 non-paid clock hours per semester of supervised work is required for each unit of credit. It is recommended that the hours per week be equally distributed throughout the semester. Work experience placement is not guaranteed, but assistance is provided by the Athletic Trainer faculty and staff. Students who repeat this course will improve skills through further instruction and practice.

**PHS 3 — Energy Science** 4 Units  
54 hours lecture  
54 hours lab  
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.

**PHS 7 — Physical Science** 3 Units  
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.

**PHS 7L — Physical Science Laboratory** 1 Unit  
54 hours lab  
Corequisite: PHS 7  
Laboratory topics will parallel the course content of Physical Science lecture.

**PHTH 81 — Physical Therapy Aide** 4 Units  
54 hours lecture  
54 hours lab  
Advisory: ANAT 50 or equivalent  
Role and skills of physical therapy aide. Procedures commonly performed by aides will be explained, demonstrated and practiced; includes terminology and interpersonal skills.

**PHYS 1 — Physics** 4 Units  
54 hours lecture  
54 hours lab  
Prerequisite: Eligibility for MATH 71  
The basic principles of physics. Includes theory, applications, laboratory, and problem solving in mechanics, heat, fluids, and wave motion.

**PHYS 2AG — General Physics** 4 Units  
(CAN PHYS02) Degree Applicable, CSU, UC  
54 hours lecture  
54 hours lab  
Prerequisite: MATH 150  
The discovery of basic concepts of physics by working through guided activities in a workshop style. Topics include light and geometrical optics, electricity and DC circuits (with capacitors,) linear and rotational motion, forces, momentum, energy, harmonic motion and waves.

**PAP 102 — Service Learning/Seminar for Physician Assistant Preparatory Program** 6 Units  
(May be taken for option of letter grade or Pass/No Pass only)  
36 hours lecture  
216 hours lab  
Advisory: PAP 101 taken concurrently  
Prepares students for entrance into programs for the career of Physician Assistant. Examines and profiles community health care needs. Explores and directly allows students to interface with various patient populations. Requires weekend and overnight labs to various areas in California. Out-of-class projects required. Students who repeat this course will improve skills through further instruction and practice.
PHYS 4A — Engineering Physics 5 Units
(CAN PHYS08) Degree Applicable, CSU, UC
CAN PHYS SEQ B
72 hours lecture
54 hours lab
Prerequisite: PHYS 2AG
Corequisite: MATH 181 (may have been taken previously)
Studies linear and rotational motion, forces, work, energy, oscillations, gravitation, properties of solids, and waves. Includes laboratory experience, with significant use of computers for data acquisition and analysis.

PHYS 4B — Engineering Physics 5 Units
(CAN PHYS12) Degree Applicable, CSU, UC
CAN PHYS SEQ B
72 hours lecture
54 hours lab
Prerequisite: PHYS 4A
Corequisite: MATH 280 (may have been taken previously)
Heat, kinetic theory of gases, thermodynamics, electromagnetism (including DC and AC circuits), and Maxwell's equations. Laboratory includes significant use of computers for data acquisition, analysis and simulation.

PHYS 4C — Engineering Physics 5 Units
(CAN PHYS14) Degree Applicable, CSU, UC
CAN PHYS SEQ B
72 hours lecture
54 hours lab
Prerequisite: PHYS 4B
Fluids, sound, electromagnetic waves, optics, diffraction and interference of waves, relativity, quantum physics, atomic and nuclear structure, nuclear reactions and elementary particles. Laboratory includes significant use of computers for data analysis.

PHYS 99 — Special Projects in Physics 2 Units
(May be taken four times for credit)
36 hours lecture
Corequisite: PHYS 1 or PHYS 2AG or PHYS 4A (may have been taken previously)

In order to offer selected students recognition for their academic interests and ability, and the opportunity to explore their disciplines to greater depth, the various departments from time to time offer Special Projects courses. The content of each course and the methods of study vary from semester to semester and depend on the particular project under consideration. Students must have instructor's authorization before enrolling in this class. Students who repeat this course will improve skills by further instruction and practice.

POLITICAL SCIENCE

POLI 1 — Political Science 3 Units
(CAN GOVT02) Degree Applicable, CSU, UC
54 hours lecture
Prerequisites: MATH 1A and MATH 1B
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. (May be taken four times for credit)

POLI 1H — Political Science - Honors 3 Units
(CAN GOVT02) 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.

POLI 2 — Political Science 3 Units
Degree Applicable, CSU, UC
54 hours lecture
Prerequisite: POLI 1 or POLI 1H
Advisory: Eligibility for ENGL 68
Comparative study of constitutional principles, governmental institutions, political processes, and ideologies in selected countries.

POLI 3 — Political Science Theory 3 Units
Degree Applicable, CSU, UC
54 hours lecture
Prerequisite: POLI 1 or POLI 1H
Advisory: Eligibility for ENGL 68
Emphasizes political science concepts and theories, institutions, political change, and dynamics. Designed to prepare students majoring in political science for further study in the discipline by adequate background preparation in the overall study of politics.

POLI 9 — Introduction to International Relations 3 Units
Degree Applicable, CSU, UC
54 hours lecture
Advisory: Eligibility for ENGL 68
Acquaints students with the historical and political background of international relations. Attention is given to world politics, international organization, and America’s place in world affairs.
Course Descriptions

PSYC 1A — Introduction to Psychology 3 Units
(CAN PSY01) Degree Applicable, CSU, UC
54 hours lecture
Prerequisite: Consent of instructor

PSYC 1AH — Introduction to Psychology - Honors 3 Units
(CAN PSY02) Degree Applicable, CSU, UC
54 hours lecture
Prerequisite: Acceptance into the Honors Program

PSYC 2 — Introduction to Research Methods in Psychology 4 Units
(CAN PSY06) Degree Applicable, CSU, UC
54 hours lecture
54 hours lab
Prerequisite: PSYC 1A or PSYC 1AH
Advisory: ENGL 1A

PSYC 3 — Introduction to Research Methods in Psychology 4 Units
54 hours lecture
Advisory: Eligibility for ENGL 1A

PSYC 4 — Biological Psychology 3 Units
(CAN PSY10) Degree Applicable, CSU, UC
54 hours lecture
Prerequisite: PSYC 1A or PSYC 1AH
Advisory: Eligibility for ENGL 1A

PSYC 5 — Psychology of Reasoning and Problem Solving 3 Units
Degree Applicable, CSU, UC
54 hours lecture

PSYC 6 — Psychological Science 3 Units
Degree Applicable, CSU, UC
54 hours lecture

PSYC 10 — Statistics for the Behavioral Sciences 4 Units
(CAN PSY06) Degree Applicable, CSU, UC
54 hours lecture
54 hours lab
Prerequisite: PSYC 1A or SOC 1 and eligibility for MATH 110
Statistical principles of the behavioral sciences emphasizes research design, scales of measurement, distributions, graphing, descriptive statistics, measures of central tendency, measures of variability, z-test, independent and dependent t-tests, inferential statistics, confidence intervals, linear correlations and regression, and analysis of variance, including multivariate factorial designs and chi square analyses. Statistical analyses through the use of computerized statistical packages are interpreted through lab experience.

PSYC 11 — Psychological Science 3 Units
Degree Applicable, CSU, UC
54 hours lecture
Prerequisite: PSYC 1A

PSYC 13 — Biological Psychology 3 Units
Degree Applicable, CSU, UC
54 hours lecture
Prerequisite: PSYC 1A or PSYC 1AH

PSYC 14 — Developmental Psychology 3 Units
Degree Applicable, CSU, UC
54 hours lecture
Advisory: Eligibility for ENGL 1A

PSYC 17 — Introduction to Human Services 3 Units
Degree Applicable
54 hours lecture
Prerequisite: PSYC 1A or SOC 1 and eligibility for MATH 110

PSYC 19 — Abnormal Psychology 3 Units
Degree Applicable, CSU, UC
54 hours lecture
Prerequisite: PSYC 1A or PSYC 1AH

PSYC 21 — The Psychology of Women 3 Units
Degree Applicable, CSU, UC
54 hours lecture
Advisory: Eligibility for ENGL 1A

PSYC 25 — The Psychology of Women 3 Units
Degree Applicable, CSU, UC
54 hours lecture
Advisory: PSYC 1A and ENGL 1A (taken prior or concurrently)

PSYC 26 — Psychology of Sexuality 3 Units
Degree Applicable, CSU, UC
54 hours lecture
Prerequisite: Eligibility for ENGL 68

PSYC 33 — Psychology for Effective Living 3 Units
Degree Applicable, CSU
54 hours lecture

PSYC 40 — Psychology of Mental Health 3 Units
Degree Applicable, CSU, UC
54 hours lecture
Prerequisite: PSYC 1A

PSYC 50 — Psychology of Human Relations 3 Units
Degree Applicable
54 hours lecture
Prerequisite: Eligibility for ENGL 68

PSYC 53 — Psychology of Mental Health 3 Units
Degree Applicable, CSU, UC
54 hours lecture
Prerequisite: PSYC 1A

PSYC 55 — Psychology of Human Relations 3 Units
Degree Applicable
54 hours lecture
Prerequisite: Eligibility for ENGL 68

PSYC 59 — Special Projects in Psychology 2 Units
Degree Applicable
36 hours lecture

PSYC 60 — Special Projects in Psychology 2 Units
Degree Applicable
36 hours lecture
(May be taken four times for credit)

RADIO - TELEVISION

R-TV 01 — Introduction to Broadcasting 3 Units
Degree Applicable, CSU
54 hours lecture

R-TV 02 — Introduction to Broadcasting 3 Units
Degree Applicable, CSU
54 hours lecture

Survey course of the film and electronic media industries, concentrating on the United States. This includes cultural, historical, social, legal and economic issues in motion pictures, radio and television broadcasting, cable, satellite, Internet and related technologies.
R-TV 02 — On-Air Personality Development 3 Units
Degree Applicable, CSU
54 hours lecture
Corequisite: R-TV 01 and R-TV 11A (may have been taken previously)
Developing a professional radio personality and understanding of the business for all areas of the industry, including performance (singing, hosting, and voice acting). Students will also develop an understanding of the workings of voice and diction as they pertain to broadcasting and learn to evaluate the effectiveness of voice work done by others. Emphasis will also be placed on developing the content of on-air shows. Students will review the basics of the production studio and its components.

R-TV 02A — On-Air Personality Development-Spanish Market 3 Units
Not Degree Applicable
54 hours lecture
Corequisite: R-TV 01 and R-TV 11A (may have been taken previously)
Covers the strategies and legalities of advertising time sales for radio and television commercials, character voices, narrations, and animation. Further development of auditioning, working with agents and agencies, and understanding voice-over contracts.

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 logistics of covering sports and how to work with professional sports teams and equipment technicians. Practical experience will be provided through coverage of Mt. SAC’s athletic teams. Students who repeat this course will improve skills through further instruction and practice.

R-TV 04 — Broadcast News Field Reporting 3 Units
Degree Applicable
54 hours lecture
Students will learn how to research and cover various news events including working with police and other emergency personnel, interviewing techniques and story development. Emphasis will be placed on legal and ethical issues concerning news coverage.

R-TV 05 — Radio-TV Newswriting 3 Units
Degree Applicable
54 hours lecture
Writing, editing and reporting radio and TV news, utilizing the Associated Press Wire Service, AP Newsboss software. Students will rewrite news wire copy as well as create stories from interviews and from covering news events, including the incorporation and selection of sound bites from actualities. Emphasis will be on factual and concise content and the ability to work under deadline.

R-TV 06 — Broadcast Traffic Reporting 1.5 Units
Degree Applicable
27 hours lecture
Corequisite: R-TV 01 (may have been taken previously)
The history and development of the techniques involved in radio and television traffic reporting through lecture and hands-on practice. Students will learn how to interpret and read police codes as they relate to traffic, accidents, and emergency situations and understand both broadcast rules and liabilities as they apply to traffic reporting.

R-TV 07A — Beginning Commercial Voice-Overs 3 Units
Not Degree Applicable
54 hours lecture
Advisory: R-TV 01
Development of voices for radio and television commercials, character voices, narrations, and animation. Also covers auditioning, working with agents and agencies, and understanding voice-over contracts.

R-TV 07B — Advanced Commercial Voice-Overs 3 Units
Degree Applicable
36 hours lecture
54 hours lab
Instruction in advanced techniques used in the art of voicing for radio and TV commercials, animation and narration. Further development of audition and recording session skills.

R-TV 08 — KSASK Radio Studio Operations 2 Units
(May be taken for Pass/No Pass only)
Degree Applicable, CSU
36 hours lecture
Corequisite: R-TV 01 (may have been taken previously)
A training course for positions at Mt. SAC’s on-campus radio station, KSASK. Includes programming, production procedures, news, DJ and promotion, and FCC rules and regulations. Recommended for students wanting to become a part of KSASK and also offers an excellent overview of the components of a professional radio station.

R-TV 09 — Broadcast Sales and Promotion 3 Units
Degree Applicable
54 hours lecture
Corequisite: R-TV 01 (may have been taken previously)
Covers the strategies and legalities of advertising time sales for radio and television including FCC requirements, demographic targeting, marketing strategies, and reaching and working with agencies. The course also covers promotions, including the creation of contests and promotional campaigns.

R-TV 10 — Radio Management and Programming 3 Units
Degree Applicable
54 hours lecture
Corequisite: R-TV 01 (may have been taken previously)
An overview of the various techniques of programming a radio station, including various formats of music, news, talk and sports. Students will be able to look at the role of management at a station including budgeting, unions, ratings and FCC responsibilities.

R-TV 11A — Beginning Radio Production 3 Units
Degree Applicable, CSU
36 hours lecture
54 hours lab
Corequisite: R-TV 01 (may have been taken previously)
An overview of the various techniques of programming a radio station, including various formats of music, news, talk and sports. Students will be able to look at the role of management at a station including budgeting, unions, ratings and FCC responsibilities.

R-TV 11B — Advanced Radio Production 3 Units
Degree Applicable, CSU
54 hours lecture
Advisory: R-TV 01
.lifecycle build up on the basic understanding of linear and non-linear recording, editing, and mixing as learned in R-TV 11A. Develop an understanding of the core concepts and skills required to work in a professional recording studio environment using Pro Tools, the industry standard for state-of-the-art digital workstations.

R-TV 12 — Commercial Copywriting 3 Units
Degree Applicable
54 hours lecture
Advisory: R-TV 01
Covers the creation and production of radio and television commercials. Includes using demographic research to target specific audiences, truth in advertising, slogan and campaign development, character creation, commercial formats, and the use of visual and audio appeals.

R-TV 14 — Media Aesthetics 3 Units
Degree Applicable
54 hours lecture
Prerequisite: ENGL 67
Media aesthetics for television and film presentation. Stresses critical, theoretical and practical analysis. Material is presented from a producer/artist point of view and is intended for those pursuing a career in film, television, and other electronic media, presenting material from the producer/artist point of view.
## Course Descriptions

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Degree Applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>R-TV 15</td>
<td>Broadcast Business Practices</td>
<td>3</td>
<td>Degree Applicable</td>
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<tr>
<td></td>
<td>54 hours lecture</td>
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<tr>
<td></td>
<td>Corequisite: R-TV 01 (may have been taken previously)</td>
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<td></td>
<td>A basic overview of the radio and television industry as a business for profit. Basic techniques are discussed and examined in negotiating with station management and agents as well as dealing with contracts, residuals, re-use rights, mergers, protection of intellectual properties, union representation and FCC law. Professional ethics and broadcasters' responsibilities to their audiences are also discussed.</td>
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<tr>
<td>R-TV 16</td>
<td>Broadcast Career Preparation</td>
<td>3</td>
<td>Degree Applicable</td>
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<tr>
<td></td>
<td>54 hours lecture</td>
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<tr>
<td></td>
<td>Corequisite: R-TV 11A or R-TV 19A</td>
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<td></td>
<td>Students taking this class will prepare their audio and/or video demo tapes and resumes in order to obtain and maintain an entry-level job in the broadcast industry. Emphasis will be placed on employment searches, interview techniques, involvement in professional organizations and business strategies.</td>
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<tr>
<td>R-TV 17</td>
<td>Internet Radio and Podcasting</td>
<td>3</td>
<td>Degree Applicable</td>
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<td></td>
<td>54 hours lecture</td>
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<td></td>
<td>Corequisite: R-TV 01 and R-TV 11A (may have been taken previously)</td>
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<td></td>
<td>Covers all aspects of internet broadcasting and podcasting including programming, announcing, promotions, and legal and copyright issues through the use of an actual internet radio station.</td>
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<tr>
<td>R-TV 18</td>
<td>Writing for Television/Film</td>
<td>3</td>
<td>Degree Applicable</td>
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<td></td>
<td>54 hours lecture</td>
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<td></td>
<td>Advisory: R-TV 01</td>
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<td></td>
<td>Characterization, visualization, structure and form in various types of writing for television and motion picture production.</td>
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<td>R-TV 19A</td>
<td>Beginning Television Production</td>
<td>3</td>
<td>Degree Applicable</td>
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<td>54 hours lecture</td>
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<td></td>
<td>Corequisite: R-TV 01 (may have been taken previously)</td>
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<td></td>
<td>Basic video production using studio, remote multicamera, and film-style techniques.</td>
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<td>R-TV 19B</td>
<td>Advanced Television Production</td>
<td>3</td>
<td>Degree Applicable</td>
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<td></td>
<td>54 hours lecture</td>
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<td></td>
<td>Corequisite: R-TV 19A (may have been taken previously)</td>
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<td></td>
<td>Advanced video production emphasizing film-style aesthetics and production.</td>
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<tr>
<td>R-TV 20</td>
<td>Television News Production</td>
<td>3</td>
<td>Degree Applicable</td>
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<td></td>
<td>54 hours lecture</td>
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<td></td>
<td>18 hours lab</td>
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<td></td>
<td>Corequisite: R-TV 05 or R-TV 11A or R-TV 19A</td>
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<td>Advisory: JOUR 11</td>
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<td></td>
<td>TV newscasting using writing, announcing, production, direction, graphics, and editing skills both in and out of the studio.</td>
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<tr>
<td>R-TV 21</td>
<td>Remote Television Production and Engineering</td>
<td>3.5</td>
<td>Degree Applicable</td>
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<td></td>
<td>54 hours lecture</td>
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<td></td>
<td>36 hours lab</td>
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<td>Corequisite: R-TV 19A</td>
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<td></td>
<td>Students learn remote video production using both multi-camera and single camera techniques. Topics include video engineering, directing, and remote production truck setup.</td>
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<td>R-TV 22</td>
<td>Editing for Film and Television</td>
<td>3</td>
<td>Degree Applicable</td>
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<td></td>
<td>54 hours lecture</td>
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<td></td>
<td>Aesthetics and use of non-linear editing software for film and television.</td>
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<td>R-TV 26</td>
<td>Current Issues in Entertainment Law</td>
<td>3</td>
<td>Degree Applicable</td>
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<td></td>
<td>54 hours lecture</td>
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<td>Advisory: R-TV 01 or PLGL 30</td>
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<td></td>
<td>Overview of the major legal and FCC regulatory issues facing broadcasting, cable and developing media. Also covers the growing importance of intellectual property law as it applies to digital media and the Internet.</td>
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<td>R-TV 27</td>
<td>Radio Drama</td>
<td>3</td>
<td>Degree Applicable</td>
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<td>54 hours lecture</td>
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<td>Corequisite: R-TV 07</td>
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<td></td>
<td>The practical and artistic skills needed for the performance of radio drama such as voicing, directing, writing and sound design combined with broadcasting history and communication theory.</td>
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<tr>
<td>R-TV 30</td>
<td>Introduction to Careers in Entertainment</td>
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<td>Not Degree Applicable</td>
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<td>36 hours lecture</td>
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<td>Corequisite: R-TV 11A</td>
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<td>An overview of broadcasting as a potential career. Examines the skills and training needed to work in radio, television and film in such areas as D-J, news anchor/reporter, sports reporter, commercial voice-over artist, production director, writer, producer and director.</td>
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<td>R-TV 31</td>
<td>History of Radio DJs</td>
<td>3</td>
<td>Degree Applicable</td>
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<td></td>
<td>54 hours lecture</td>
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<td>Traces the history of music radio through study of the most influential disc jockeys in broadcasting history.</td>
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<td>R-TV 33</td>
<td>Radio Show Producer Techniques and Procedures</td>
<td>3</td>
<td>Degree Applicable</td>
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<td>54 hours lecture</td>
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<td>Corequisite: R-TV 01</td>
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<td></td>
<td>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.</td>
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<td>R-TV 34</td>
<td>On-Camera Performance</td>
<td>1.5</td>
<td>Degree Applicable</td>
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<td></td>
<td>27 hours lecture</td>
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<td>Advisory: R-TV 01</td>
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<td></td>
<td>On-camera techniques used in news and sports anchoring and reporting including make-up, hair, wardrobe and overall presentation.</td>
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<td>R-TV 97A</td>
<td>Radio/Entertainment Industry Seminar</td>
<td>1</td>
<td>Degree Applicable</td>
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<td>(May be taken four times for credit)</td>
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<td></td>
<td>18 hours lecture</td>
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<td>Corequisite: R-TV 01 and any other three R-TV units</td>
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<td>A capstone class for students preparing for a career in the radio/entertainment industry. Students share and critique experiences emphasizing professionalism and problem-solving techniques related to their internship experience. Students who repeat this course will improve skills through further instruction and practice.</td>
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<tr>
<td>R-TV 97B</td>
<td>Radio/Entertainment Industry Internship</td>
<td>1</td>
<td>Degree Applicable</td>
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<td>(May be taken four times for credit)</td>
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<td></td>
<td>75 hours lab</td>
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<td>Corequisite: R-TV 01 and any other three R-TV units</td>
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<td>Provides the student with on-the-job experience in the radio/entertainment industry in order to strengthen and broaden his/her skills in the workplace. A minimum of 75 paid or 60 non-paid clock hours per semester of supervised work is required for each unit of credit. It is recommended that the hours per week be equally distributed throughout the semester. Students who repeat this course will improve skills through further instruction and practice.</td>
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<tr>
<td>R-TV 97C</td>
<td>KSAK Radio/Internet Radio Internship</td>
<td>1 to 2</td>
<td>Degree Applicable</td>
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<td>(May be taken four times for credit)</td>
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<td></td>
<td>75 to 150 hours lab</td>
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<td>Corequisite: R-TV 11A</td>
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<td>Regular and continuing experience in the operation of the College radio station or the College Internet station. Students may select roles involving on-air announcing, production, programming and news. A minimum of 75 paid or 60 non-paid clock hours per semester of supervised work is required for each unit of credit. It is recommended that the hours per week be equally distributed throughout the semester. Students who repeat this course will improve skills through further instruction and practice.</td>
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</tbody>
</table>
### R-TV 98A — Television and Film/Entertainment Industry Seminar

1 Unit

(May be taken four times for credit)
18 hours lecture
Prerequisite: R-TV 01 and R-TV 19A
Corequisite: R-TV 98B

A capstone class for students preparing for a career in Television or Film Production. Students share and critique experiences emphasizing professionalism and problem-solving techniques related to their internship experience. Students who repeat this course will improve skills through further instruction and practice.

### R-TV 98B — Television and Film/Entertainment Industry Internship

1 Unit

(May be taken four times for credit)
75 hours lab
Prerequisite: R-TV 01 and R-TV 19A
Corequisite: R-TV 98A

Provides the student with actual on-the-job experience in television or film production in order to strengthen and broaden his/her skills in the workplace. A minimum of 75 paid or 60 non-paid clock hours per semester of supervised work is required for each unit of credit. It is recommended that the hours per week be equally distributed throughout the semester. Students who repeat this course will improve skills through further instruction and practice.

### R-TV 99 — Radio/TV Special Projects

2 Units

(May be taken four times for credit)
36 hours lecture
Prerequisite: Completion of six R-TV units

To offer selected students recognition for their academic interests and ability and the opportunity to explore their disciplines to greater depth, the various departments from time to time offer Special Projects courses. The content of each course and the methods of study vary from semester to semester and depend on the particular project under consideration. Students repeating this course will make individual contracts of a more advanced nature with the instructor to ensure that proficiencies are enhanced.

### RAD 30 — Radiographic Pathology

1.5 Units

24 hours lecture
Corequisite: R-TV 63
Advisory: R-TV 64

Concepts of disease and pathological processes demonstrated in diagnostic radiography; etiology, diagnosis, and prognosis of systemic disease processes.

### RAD 31 — Fluoroscopy

2 Units

36 hours lecture
Corequisite: R-TV 64
Advisory: R-TV 55B

Components and characteristics of fluoroscopic systems including regulatory requirements for operation. Includes quality control and quality assurance systems relative to radiology.

### RAD 32 — Digital Imaging in Radiology

2 Units

36 hours lecture

Imparts an understanding of the components, principles and operation of digital imaging systems found in diagnostic radiology. Factors that impact image acquisition, display, archiving and retrieval discussed. Guidelines for selecting exposure factors and evaluating images within a digital system assist students to bridge between film-based and digital imaging systems. Principles of digital system quality assurance and maintenance presented.

### RAD 50 — Radiologic Technology

3 Units

54 hours lecture

Prerequisite: Admission to the Radiologic Technology Program, Eligibility for MATH 71, and CHEM 10
Corequisite: RAD 91

Subjects related to the hospital environment: radiation protection, darkroom technique, general principles of x-ray production and production of the radiograph. Introduces the student to professional ethics and the legal considerations of health care.

### RAD 52A — Techniques of Radiologic Technology

4.5 Units

(May be taken for Pass/No Pass only)
236 hours lab
Corequisite: RAD 61A

Practical application of radiographic theories and principles in a hospital setting under direct supervision of clinical personnel and college instructors. Emphasis on chest, upper and lower limbs, from digits to shoulder, from toes to knee, abdomen, and kidney, ureters, and bladder (KUB).

### RAD 52B — Techniques of Radiologic Technology

2.5 Units

(May be taken for Pass/No Pass only)
140 hours lab

Continued application of radiographic theories and principles in a hospital setting under direct supervision of clinical personnel and college instructor. Emphasis on upper and lower limbs.

### RAD 53 — Techniques of Radiologic Technology

5 Units

(May be taken for Pass/No Pass only)
256 hours lab
Prerequisite: RAD 52B
Corequisite: RAD 62B

Practical application of radiographic theories and principles in an affiliated hospital under direct supervision of clinical personnel and college instructors. Emphasis on abdominal and thoracic viscera, spine, common contrast exams, and generalized skull radiography.

### RAD 54 — Techniques of Radiologic Technology

3 Units

(May be taken for Pass/No Pass only)
150 hours lab
Prerequisite: RAD 52A
Corequisite: RAD 62A

Practical experience in a hospital setting under the supervision of clinical personnel and college instructors. Emphasis on skull, portable radiography, surgical studies and the development of nursing skills as it relates to radiologic technology.

### RAD 55A — Techniques of Radiologic Technology

7 Units

(May be taken for Pass/No Pass only)
360 hours lab
Prerequisite: RAD 52A
Corequisite: RAD 62A

Practical experience in an affiliated hospital under guidance of clinical personnel and college instructors. Emphasis on cytograms, urethograms, foreign body localization, tomography, and venography.
### COURSE DESCRIPTIONS

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Degree Applicable</th>
<th>CSU</th>
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</thead>
<tbody>
<tr>
<td>RAD 56</td>
<td>Techniques of Radiologic Technology</td>
<td>7 Units</td>
<td>Degree Applicable</td>
<td>CSU</td>
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<td>(May be taken for Pass/No Pass only)</td>
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<td></td>
<td>380 hours lab</td>
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<td>Corequisite: RAD 64</td>
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<tr>
<td></td>
<td>Practical experience in an affiliated hospital</td>
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<td></td>
<td>under guidance of clinical personnel and college</td>
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<td></td>
<td>instructors. Emphasis on basic vascular procedures</td>
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<td></td>
<td>(angiograms), mammograms, tube placement,</td>
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<td></td>
<td>myelograms, arthograms, and hysterosalpingograms.</td>
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<tr>
<td>RAD 57</td>
<td>Techniques of Radiologic Technology</td>
<td>4 Units</td>
<td>Degree Applicable</td>
<td>CSU</td>
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<td>(May be taken for Pass/No Pass only)</td>
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<td></td>
<td>232 hours lab</td>
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<td>Corequisite: RAD 64</td>
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<td>Practical experience as a functioning member of</td>
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<td>an affiliated hospital under the guidance of</td>
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<td>clinical personnel and college instructors.</td>
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<td>Includes exploration of pararadiological imaging</td>
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<td>modalities and venipuncture instruction.</td>
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<tr>
<td>RAD 61A</td>
<td>Theory of Radiologic Technology</td>
<td>4 Units</td>
<td>Degree Applicable</td>
<td>CSU</td>
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<td>72 hours lecture</td>
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<td>Prerequisite: RAD 50, MEDI 90</td>
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<td>Corequisite: RAD 52A, RAD 61B, RAD 61C</td>
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<td></td>
<td>Concepts of radiation, fundamentals of physics,</td>
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<td>the atom, electromagnetic radiation, electricity</td>
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<td>and magnetism, electromagnetism, the X-ray machine</td>
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<td>and fluoroscopic equipment and procedures.</td>
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<tr>
<td>RAD 61B</td>
<td>Radiographic Positioning</td>
<td>3 Units</td>
<td>Degree Applicable</td>
<td>CSU</td>
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<td></td>
<td>54 hours lecture</td>
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<td></td>
<td>Fundamentals of radiographic positioning of the</td>
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<td>upper and lower extremities, standard chest and</td>
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<td>abdomen; to include general radiologic anatomy,</td>
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<td>terminology, radiation protection, and ethics.</td>
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<tr>
<td>RAD 61C</td>
<td>Radiologic Technology Seminar</td>
<td>1 Unit</td>
<td>Degree Applicable</td>
<td>CSU</td>
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<td></td>
<td>18 hours lecture</td>
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<tr>
<td></td>
<td>18 hours lab</td>
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<td></td>
<td>Analysis of the technical performance of producing</td>
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<td></td>
<td>radiographs of the chest, upper and lower</td>
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<td>extremities, and KUB. Documentation of</td>
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<td>radiographic exposure techniques.</td>
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<tr>
<td>RAD 62A</td>
<td>Theory of Radiologic Technology</td>
<td>4 Units</td>
<td>Degree Applicable</td>
<td>CSU</td>
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<td>72 hours lecture</td>
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<td></td>
<td>Prerequisite: ANAT 104, RAD 61A</td>
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<td></td>
<td>Corequisite: RAD 53, RAD 62B and RAD 62C</td>
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<td></td>
<td>Areas of X-ray production and interaction with</td>
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<td></td>
<td>matter, X-ray emissions, beam restricting devices,</td>
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<td></td>
<td>grids, film processing, screens, radiographic</td>
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<td>quality and special equipment/accessories and</td>
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<td></td>
<td>procedures.</td>
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<tr>
<td>RAD 62B</td>
<td>Radiographic Positioning</td>
<td>3 Units</td>
<td>Degree Applicable</td>
<td>CSU</td>
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<td>54 hours lecture</td>
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<td>Corequisite: RAD 62A</td>
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<td></td>
<td>Fundamentals of radiographic positioning of the</td>
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<td></td>
<td>abdomen, digestive and urinary systems, thorax,</td>
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<td></td>
<td>vertebral column, general cranial, facial and</td>
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<td>introduction to temporal bone radiography (mastoID)</td>
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<td>T1M), to include radiologic anatomy, terminology,</td>
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<td></td>
<td>radiation protection, pediatrics and ethics.</td>
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<td>RAD 62C</td>
<td>Radiologic Technology Seminar</td>
<td>1 Unit</td>
<td>Degree Applicable</td>
<td>CSU</td>
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<td>18 hours lecture</td>
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<td>18 hours lab</td>
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<td>Corequisite: RAD 62A</td>
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<td></td>
<td>Advanced analysis of the technical performance of</td>
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<td></td>
<td>radiographic examination of the vertebral column,</td>
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<td></td>
<td>bony thorax, digestive system, urinary system,</td>
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<td></td>
<td>abdomen and general cranial radiography.</td>
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<tr>
<td>RAD 63</td>
<td>Theory of Radiologic Technology</td>
<td>4 Units</td>
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<td></td>
<td>72 hours lecture</td>
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<td>Prerequisite: RAD 54</td>
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<td>Corequisite: RAD 30 and RAD 55</td>
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<td>Special radiographic studies, contrast media usage</td>
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<td>and radiographic pathology. Includes principles of</td>
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<td></td>
<td>radiation protection and radiobiology.</td>
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<td>RAD 64</td>
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<td>Prerequisite: RAD 63</td>
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<td>Corequisite: RAD 31 and RAD 56</td>
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<td></td>
<td>An analytical review of the radiologic technology</td>
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<td>core courses. Serves as preparation for State</td>
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<td>Certification and National Registry Exams.</td>
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<tr>
<td>RAD 91</td>
<td>Nursing Procedures in Radiologic Technology</td>
<td>2 Units</td>
<td>Degree Applicable</td>
<td>CSU</td>
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<td>24 hours lecture</td>
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<td></td>
<td>24 hours lab</td>
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<td>Corequisite: RAD 50</td>
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<td>Nursing techniques and procedures; provides</td>
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<td>students with knowledge of proper patient care</td>
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<td>and management; includes patient transfer,</td>
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<td>disinfection and/or sterilization, isolation</td>
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<td>techniques, monitoring vital signs, common</td>
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<td>emergency situations and monitoring medical</td>
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<td></td>
<td>equipment.</td>
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<tr>
<td>READ 65</td>
<td>Speed Reading: Methods and Applications</td>
<td>1 Unit</td>
<td>Not Degree Applicable</td>
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<td></td>
<td>18 hours lecture</td>
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<td></td>
<td>Designed to increase reading speed, while</td>
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<td></td>
<td>maintaining comprehension of college-level</td>
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<td></td>
<td>material. Improves concentration and recall.</td>
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<td></td>
<td>Develops flexibility in reading rate.</td>
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### READING

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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Degree Applicable</th>
<th>CSU</th>
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<tr>
<td>READ 70</td>
<td>Improving Reading Comprehension</td>
<td>3 Units</td>
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<tr>
<td></td>
<td>54 hours lecture</td>
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<td>24 hours lab</td>
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<td>Corequisite: Satisfactory score on appropriate</td>
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<td>placement test</td>
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<td>Introduction to reading, comprehension, and</td>
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<td></td>
<td>vocabulary strategies.</td>
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<td></td>
<td>Introduction to self-awareness of reading</td>
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<td>capabilities.</td>
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<td>READ 80</td>
<td>Developing Reading Comprehension</td>
<td>3 Units</td>
<td>Not Degree Applicable</td>
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<td>54 hours lecture</td>
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<td>24 hours lab</td>
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<td>Corequisite: READ 70 or satisfactory score on</td>
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<td>reading placement test</td>
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<td></td>
<td>Further development of reading comprehension and</td>
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<td>vocabulary strategies including self-awareness of</td>
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<td>reading capabilities.</td>
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<td>READ 90</td>
<td>Preparing for College Reading</td>
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<td>54 hours lecture</td>
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<td>Corequisite: READ 80 or satisfactory score on</td>
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<td>reading placement test</td>
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<td>Prepares students for college textbook reading.</td>
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<td>Emphasizes understanding vocabulary and college</td>
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<td></td>
<td>level text analysis and comprehension.</td>
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<tr>
<td>READ 100</td>
<td>Analysis and Critical Reading</td>
<td>3 Units</td>
<td>Degree Applicable</td>
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<td>54 hours lecture</td>
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<td>Corequisite: READ 90 or satisfactory score on</td>
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<td>reading placement test</td>
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<td>Emphasizes understanding vocabulary and college</td>
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<td>level text analysis and comprehension.</td>
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<td>READ 110</td>
<td>Reading Tutoring for Elementary Students</td>
<td>3 Units</td>
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<td></td>
<td>Through Service Learning</td>
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<td></td>
<td>36 hours lecture</td>
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<td>54 hours lab</td>
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<td>Advisory: Eligibility for ENGL 68</td>
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<td>Fundamentals of reading comprehension, vocabulary</td>
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<td>development and phonics.</td>
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<td>Educational approaches include awareness of</td>
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<td>learning styles, motivation, levels of</td>
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<td>cognition and oral communication. Covers lesson</td>
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<td>planning and the methodologies of presenting</td>
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<td>lessons. In coordination with local elementary</td>
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<td>schools, students reinforce learned concepts</td>
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<td>through on-site tutoring as a service learning</td>
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<td>experience.</td>
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RESPIRATORY THERAPY

**RESD 50 — Theory and Principles of Respiratory Therapy** 2 Units
Degree Applicable, CSU
36 hours lecture
Corequisite: RESD 51A and RESD 52
Properties of liquids, gases, kinetic theory of gases, units of measurements, gas laws, lung mechanics, flow of fluids, and pressure measuring devices used in respiratory therapy.

**RESD 51A — Respiratory Therapy Science** 4 Units
Degree Applicable, CSU
54 hours lecture
54 hours lab
Corequisite: RESD 50 and RESD 52
Basic principles of respiratory therapy equipment. Emphasis placed on methods of administration of therapy and application of specialized equipment in the clinical setting. Basic respiratory physiology and oxygen transport.

**RESD 51B — Respiratory Therapy Science** 4 Units
Degree Applicable, CSU
54 hours lecture
54 hours lab
Prerequisite: RESD 50 and RESD 51A
Corequisite: RESD 53 and RESD 60
Basic principles of respiratory therapy equipment will be presented. Emphasis is placed on the methods of administration of therapy and the application of specialized equipment in the acute care setting and the application of mechanical ventilation in the clinical setting.

**RESD 52 — Pulmonary Anatomy and Physiology** 3 Units
Degree Applicable, CSU
54 hours lecture
Corequisite: RESD 50 and RESD 51A
Anatomy and physiology of the cardiopulmonary, neurological and renal systems emphasizing clinical application of physiological concepts.

**RESD 53 — Cardiopulmonary Pathophysiology** 3 Units
Degree Applicable, CSU
54 hours lecture
Corequisite: RESD 51B
Anatomic alterations of the lungs, etiology, overview of the cardiopulmonary clinical manifestations, and general management of commonly encountered cardiopulmonary diseases.

**RESD 55 — Adult Respiratory Intensive Care** 3 Units
Degree Applicable, CSU
54 hours lecture
Corequisite: RESD 56B
Provides an in-depth approach to the current modalities and monitoring tools of respiratory care. Emphasis is on the adult patient who is critically ill with primary and/or secondary cardiopulmonary failure.

**RESD 56A — Techniques of Respiratory Therapy** 2.5 Units
Degree Applicable, CSU
(May be taken for Pass/No Pass only)
144 hours lab
Prerequisite: RESD 51B
Corequisite: RESD 57B
Clinical practice in intensive care and mechanical ventilator procedures in the treatment of adult and pediatric patients in a hospital setting. The student is expected to perform basic therapeutic modalities mastered in RESD 51A and RESD 51B and apply concepts learned in the first 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.

**RESD 56B — Techniques of Respiratory Therapy** 6 Units
Degree Applicable, CSU
(May be taken for Pass/No Pass only)
384 hours lab
Prerequisite: RESD 56A
Corequisite: RESD 55 and RESD 58
Clinical practice in the hospital setting. The student is expected to perform basic therapeutic modalities mastered in RESD 51A and RESD 51B and apply concepts learned in the first three semesters of the Respiratory Therapy Program. Instruction in the application of therapeutic modalities and diagnostic procedures performed in the management and treatment of adult and pediatric patients requiring respiratory care are done. Emphasis of intensive care and mechanical ventilator procedures are introduced.

**RESD 56C — Techniques of Respiratory Therapy** 2.5 Units
Degree Applicable, CSU
(May be taken for Pass/No Pass only)
144 hours lab
Prerequisite: RESD 53 and RESD 55
Corequisite: RESD 57C and RESD 59
Clinical practice in the hospital setting. Continued practice of intensive care and mechanical ventilator procedures in the treatment of adult and pediatric patients.

**RESD 56D — Techniques of Respiratory Therapy** 2.5 Units
Degree Applicable, CSU
(May be taken for Pass/No Pass only)
144 hours lab
Prerequisite: RESD 53 and RESD 55
Corequisite: RESD 57D
Clinical practice in the hospital setting. Continued practice of intensive care and mechanical ventilator procedures in the treatment of adult and pediatric patients.

**RESD 57A — Special Procedures for Respiratory Care** 1.5 Units
Degree Applicable, CSU
27 hours lecture
Prerequisite: RESD 50
Corequisite: RESD 56A
Topics in the basic application of and skills development in bronchoscopy, blood drawing and analysis, chest drainage, microbiology for respiratory care, IPPB, and blood gas data analysis.

**RESD 57B — Special Procedures for Respiratory Care** 1.5 Units
Degree Applicable, CSU
27 hours lecture
Prerequisite: RESD 51B
Corequisite: RESD 56A
Basic application and skills development in respiratory pharmacology, bronchoscopy, and blood drawing and analysis.

**RESD 58 — Neonatal Intensive Care** 3 Units
Degree Applicable, CSU
54 hours lecture
Corequisite: RESD 56B and RESD 53
Emphasizes neonatal pathophysiologies, etiologies, and ramifications. Encompasses the newest techniques in monitoring equipment used in the treatment and maintenance of the premature infant. Designed primarily for respiratory therapists and nurses.

**RESD 59 — Respiratory Therapeutic Modalities** 3 Units
Degree Applicable, CSU
54 hours lecture
Corequisite: RESD 56C and RESD 61
Advanced practitioner skills development pertinent to the application and function of respiratory therapy equipment with emphasis on the machine-patient interface.

**RESD 60 — Comprehensive Pulmonary Assessment** 2 Units
Degree Applicable, CSU
36 hours lecture
Corequisite: RESD 51B and RESD 53
Techniques of pulmonary assessment including history taking, clinical laboratory data, pulmonary function testing data, chest X-rays, physician exam findings, arterial blood gas data, hemodynamic monitoring data, exhaled gas monitoring data, nutrition, and synopsis of findings: extensive practice in collecting and recording this data.

**RESD 61 — Current Issues in Respiratory Care** 3 Units
Degree Applicable, CSU
(May be taken for Pass/No Pass only)
54 hours lecture
Corequisite: RESD 56D and RESD 59
Explores recently developed health care techniques and strategies for diagnostics, assessment, and therapeutics and their impact on respiratory therapists.
Course Descriptions

SERVICE LEARNING

SL 1 — Service Learning/Seminar for Health Occupations 6 Units
Degree Applicable, CSU
36 hours lecture
216 hours lab
(Not offered this year)
Prepares students with service experiences in health occupations. Examines and profiles community health care needs. Interfaces with various patient populations. Weekend and overnight labs to various areas within California may be offered. Out-of-class projects required.

SL 2 — Linked Service Learning 1 Unit
Degree Applicable, CSU
(May be taken for option of letter grade or Pass/No Pass)
54 hours lab
Links service learning with content-specific courses across the college curriculum. Allows students to explore interests or career objectives through community involvement and service. Requires arranged hours of community-based activity. Must be enrolled concurrently in a course with a service learning link.

SL 3 — Service Learning/Seminar in Community Involvement 3 Units
Degree Applicable, CSU
(May be taken for option of letter grade or Pass/No Pass)
18 hours lecture
108 hours lab
Examines and profiles community needs through service learning. Explores and allows students to develop directly to interface with community populations. Permits students the opportunity to explore various career options through community service. Enriches personal and career development through understanding of civic and social issues.

SL 4 — Service Learning and Community Involvement 1 Unit
Degree Applicable, CSU
(May be taken for option of letter grade or Pass/No Pass)
9 hours lecture
27 hours lab
Examines and addresses community needs through service learning. Students directly interface with community populations to identify needs and implement activities. Permits exploration of service-oriented career options. Enriches personal and career development through understanding of civic and social issues.

SL 99 — Special Projects in Service Learning 1 Unit
Degree Applicable, CSU
(May be taken for Pass/No Pass only)
36 hours lab
In order to offer selected students recognition for their academic interests and ability and the opportunity to explore their disciplines to a greater depth, from time to time various departments offer Special Projects courses. The content of each course and the methods of study vary from semester to semester and depend on the particular project under consideration. Student must have instructor’s authorization before enrolling in this class.

SIGN LANGUAGE, INTERPRETING

SIGN 99 — Special Projects in Sign Language/Interpreting 2 Units
Degree Applicable
(May be taken four times for credit)
36 hours lecture
Prerequisite: SIGN 87 or SIGN 102 or equivalent signing ability
Offers students the opportunity to explore American Sign Language, American Deaf Culture or Sign Language Interpreting in greater depth. Content and methods of study vary from semester to semester and depend on the particular project under consideration.

SIGN 101 — American Sign Language 1 4 Units
Degree Applicable, CSU, UC
72 hours lecture
Fundamentals of American Sign Language. Preparation for visual/gestural communication followed by intensive work on comprehension skills; modeling of grammatical structures; general information about Deaf Culture.

SIGN 102 — American Sign Language 2 4 Units
Degree Applicable, CSU, UC
72 hours lecture
Prerequisite: SIGN 80 or SIGN 101 or equivalent fluency
Further study of fundamentals of American Sign Language focusing on comprehension skills, grammatical structures and practice in the expressive aspects of the language, as well as exposure to Deaf culture.

SIGN 103 — American Sign Language 3 4 Units
Degree Applicable, CSU, UC
72 hours lecture
Prerequisite: SIGN 81 or SIGN 102 or equivalent fluency
Further study of American Sign Language focused on developing comprehension skills, advanced grammatical structures with continued emphasis on expressive skills in narrative. Aspects of Deaf culture will be studied.

SIGN 104 — American Sign Language 4 4 Units
Degree Applicable, CSU, UC
72 hours lecture
Prerequisite: SIGN 82A or SIGN 103 or equivalent fluency
Emphasis on expressive/convensional skills in American Sign Language along with continued focus on grammatical and cultural features.

SIGN 105 — American Sign Language 5 4 Units
Degree Applicable
72 hours lecture
Prerequisite: SIGN 82B or SIGN 104
Advanced American Sign Language communication skills with emphasis on signing descriptive narratives and strengthening conversational skills. Target language practice includes holding discussions and making decisions. Further exposure to Deaf cultural components.

SIGN 108 — Fingerspelling 2 Units
Degree Applicable
(May be taken for Pass/No Pass only)
36 hours lecture
Prerequisite: SIGN 87 or SIGN 102
Skill development in receptive and expressive fingerspelling.

SIGN 201 — Deaf Perspectives 3 Units
Degree Applicable
54 hours lecture
Comprehensive study of Deaf people throughout their lives, including points of view from a variety of Deaf and hard-of-hearing people and from their relatives, educators, and other professionals in the field.

SIGN 202 — American Deaf Culture 3 Units
Degree Applicable
54 hours lecture
American Deaf cultural norms, values, mores and institutions.

SIGN 203 — American Sign Language Structure 3 Units
Degree Applicable, CSU, UC
54 hours lecture
Prerequisite: SIGN 103
Covers various aspects of interpreting theory and process including the history of sign language interpreting. Examines the interpreter's role and ethical standards.

SIGN 204 — Special Topics in American Sign Language 1 Unit
Degree Applicable
Prerequisite: SIGN 203
Covers various aspects of interpreting theory and process including the history of sign language interpreting. Examines the interpreter's role and ethical standards.

SIGN 220 — Sign Language and English Translation 3 Units
Degree Applicable
54 hours lecture
Prerequisite: SIGN 104
Corequisite: SIGN 210
American Sign Language and English translation by comparing texts in both languages.

SIGN 223 — Principles of Interpreting 3 Units
Degree Applicable, CSU
54 hours lecture
Prerequisite: SIGN 203, Eligibility for ENGL 1A
Covers various aspects of interpreting theory and process including the history of sign language interpreting. Examines the interpreter's role and ethical standards.

SIGN 225 — Ethical Decision Making for Interpreters 2 Units
Degree Applicable
36 hours lecture
Prerequisite: SIGN 223
Development of ethical decision-making skills through the analytical construct of the Demand/Control Schema for interpreting work. Topics include professional work effectiveness and professional wellness.
SIGN 227 — Cognitive Processing for Interpreters 4 Units
(May be taken for option of letter grade or Pass/No Pass)
54 hours lecture
54 hours lab
The development of cognitive processing skills necessary for
interpreting between ASL and English. Constructing and deconstructing
meaning, memory, listening and attending will be covered. Includes
memory building, restating, cloze, and listening exercises.
SIGN 231 — Interpreting 4 Units
72 hours lecture
Prerequisite: SPCH 1A and SIGN 227
Skill development in interpreting from American Sign Language (ASL)
and English to ASL, focusing on interpreting in the
consecutive mode. Processing skills and task management will be
emphasized.
SIGN 232 — Advanced Interpreting 4 Units
54 hours lecture
54 hours lab
Prerequisite: SIGN 231
Refines basic interpreting skills with emphasis on simultaneous
interpreting. Intensive skill development in interpreting from English to
American Sign Language (ASL) and ASL to English.
SIGN 238 — Oral Transliteration 3 Units
54 hours lecture
Learn skills to facilitate communication for Deaf and hard-of-hearing
people who use speechreading and speech to communicate.
SIGN 239 — Practicum 1 Unit
(May be taken for Pass/No Pass only)
54 hours lab
Prerequisite: SIGN 88B or SIGN 232
Develops and hones interpreting skills in supervised interpreting
situations.
SIGN 240 — Vocabulary Building for Interpreters 2 Units
(May be taken for Pass/No Pass only)
36 hours lecture
Prerequisite: SIGN 104
Vocabulary expansion in both ASL and English with the goal of
improving interpretations between these two languages. The course will
focus on context, semantics, and parts of speech in determining
culturally appropriate vocabulary choices. Interpreting students will
learn to apply their growing vocabularies to ASL-English interpretations.

SIGN 250 — Interpreting with Classifiers 1.5 Units
(May be taken for Pass/No Pass only)
18 hours lecture
27 hours lab
An overview of the common forms of ASL classifier predicates.
Developing skill in establishing figure/ground, visualization, and shifting
perspectives. Applying classifier predicates within the context of
interpreting from English into American Sign Language.
SIGN 260 — Video Interpreting 1.5 Units
(May be taken for Pass/No Pass only)
18 hours lecture
27 hours lab
Video interpreting and skill development as a video interpreter. Includes
video relay interpreting (VRS), video remote interpreting (VRI), technical
components used in video interpreting, and ethical consideration of the
video interpreter. Lab portion of the course will focus on skill
development in video interpreting.

SOCIOLOGY

SOC 1 — Sociology 3 Units
(CAN SOC02) Degree Applicable, CSU, UC
54 hours lecture
Prerequisite: Eligibility for ENGL 68
A systematic study of human relations and social structures which
emphasizes the interaction between personality, culture and society.
Emphasis is given to understanding of group behavior, personality
formation, social organization, and social change.
SOC 1H — Sociology - Honors 3 Units
(CAN SOC02) Degree Applicable, CSU, UC
54 hours lecture
Prerequisite: Acceptance into the Honors Program
A scientific analysis of the nature, extent, and causes of violations of
societal rules of behavior that are formally defined as crime and
delinquency. Includes an analysis of the theoretical perspectives of the
sociology of deviance on the criminal justice system and the impact of
crime on society.
SOC 2 — Sociology 3 Units
(CAN SOC04) Degree Applicable, CSU, UC
54 hours lecture
Advisory: Eligibility for ENGL 68
The application of basic sociological principles and concepts to the study
and understanding of social problems. Special emphasis on the analysis
of social values, social organization, role, status and stress, and also on
the study of controversial public issues that arise in contemporary
American society. Students will be encouraged to evaluate and discuss
both the theoretical and practical approaches to social problems.
Individual student projects will be undertaken.

SOC 2H — Sociology - Honors 3 Units
(CAN SOC04) Degree Applicable, CSU, UC
54 hours lecture
Prerequisite: Acceptance into the Honors Program
A scientific analysis of the nature, extent, and causes of violations of
societal rules of behavior that are formally defined as crime and
delinquency. Includes an analysis of the theoretical perspectives of the
sociology of deviance on the criminal justice system and the impact of
crime on society. An honors course designed to provide an enriched experience. Students may not receive credit for both SOC 2 and SOC 2H.

SOC 4 — Introduction to Gerontology 3 Units
Degree Applicable, CSU, UC
54 hours lecture
Characteristics, contributions, and problems of older persons. Emphasizes
theoretical perspectives on the process of aging. Topics include gender,
race, ethnicity, religion, stratification, and health care. Attention is given
to gerontology as an academic discipline and a field of practice.
SOC 5 — Introduction to Criminology 3 Units
Degree Applicable, CSU, UC
54 hours lecture
A scientific analysis of the nature, extent, and causes of violations of
societal rules of behavior that are formally defined as crime and
delinquency. Includes an analysis of the theoretical perspectives of the
sociology of deviance on the criminal justice system and the impact of
crime on society.
SOC 5H — Introduction to Criminology - Honors 3 Units
Degree Applicable, CSU, UC
54 hours lecture
Prerequisite: Acceptance into the Honors Program
A scientific analysis of the nature, extent, and causes of violations of
societal rules of behavior that are formally defined as crime and
delinquency. Includes an analysis of the theoretical perspectives of the
sociology of deviance on the criminal justice system and the impact of
crime on society. An honors course designed to provide an enriched experience. Students may not receive credit for both SOC 5 and SOC 5H.
## Course Descriptions

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Degree Applicable, CSU, UC</th>
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<tr>
<td>SOC 14</td>
<td>Marriage and the Family</td>
<td>3</td>
<td>Degree Applicable, CSU, UC</td>
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<td></td>
<td>(CAN FCS12)</td>
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<td>Prerequisite: Eligibility for ENGL 68</td>
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<td>Provides an enriched experience.</td>
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<td>instructor to ensure that proficiencies are</td>
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<td>enhanced.</td>
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<td>SOC 15</td>
<td>Child Development</td>
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<td>Degree Applicable, CSU, UC</td>
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<td>54 hours lecture</td>
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<td>Theoretical aspects of physical, social,</td>
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<td>emotional and cognitive development from</td>
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<td>conception through adulthood. Requires</td>
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<td>observation of children.</td>
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<td>SOC 20</td>
<td>Sociology of Ethnic Relations</td>
<td>3</td>
<td>Degree Applicable, CSU, UC</td>
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<td>54 hours lecture</td>
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<td>exists in the United States. An extensive study</td>
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<td>of four major ethnic groups (Blacks, Asians,</td>
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<td>Native Americans, and Latinos) provided with</td>
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<td>emphasis placed on historical experiences,</td>
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<td>contemporary circumstances and future trends.</td>
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<td>Origins and theories of stereotypes, prejudices,</td>
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<td>and discrimination are explored along with an</td>
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<td>analysis of racial stratification.</td>
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<td>SOC 20H</td>
<td>Sociology of Ethnic Relations · Honors</td>
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<td>Degree Applicable, CSU, UC</td>
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<td>54 hours lecture</td>
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<td>Prerequisite: Acceptance into the Honors Program</td>
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<td>Provides insight to the culture diversity that</td>
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<td>exists in the United States. An extensive study</td>
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<td>analysis of racial stratification.</td>
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## SPANISH

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<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Degree Applicable, CSU, UC</th>
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<tbody>
<tr>
<td>SPAN 1</td>
<td>Elementary Spanish</td>
<td>4</td>
<td>Degree Applicable, CSU, UC</td>
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<tr>
<td></td>
<td>(CAN SPAN02)</td>
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<tr>
<td></td>
<td>72 hours lecture</td>
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<td></td>
<td>Development of the ability to converse, read and</td>
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<td></td>
<td>write in Spanish. Includes essentials of</td>
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<td>pronunciation, vocabulary, idioms and</td>
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<td></td>
<td>grammatical structures along with an introduction</td>
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<td></td>
<td>to Hispanic culture. Intended for students with</td>
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<td></td>
<td>previous exposure to Spanish.</td>
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<tr>
<td>SPAN 2</td>
<td>Continuing Elementary Spanish</td>
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<td>Degree Applicable, CSU, UC</td>
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<td></td>
<td>(CAN SPAN04)</td>
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<td></td>
<td>72 hours lecture</td>
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<td></td>
<td>Further development of conversational, reading</td>
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<td></td>
<td>and writing skills in Spanish with special</td>
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<td></td>
<td>emphasis on verbs, grammar and expansion of</td>
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<td></td>
<td>vocabulary. Further study of Hispanic culture.</td>
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<td>SPAN 3</td>
<td>Intermediate Spanish</td>
<td>4</td>
<td>Degree Applicable, CSU, UC</td>
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<td></td>
<td>(CAN SPAN08)</td>
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<td></td>
<td>72 hours lecture</td>
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<td>Prerequisite: SPAN 1 or equivalent</td>
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<td></td>
<td>Further development of communicative proficiency</td>
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<td>in Spanish. Further study and review of</td>
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<td></td>
<td>grammar. Increasing emphasis on reading and</td>
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<td>writing as tools in exploring Hispanic</td>
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<td></td>
<td>civilization.</td>
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<tr>
<td>SPAN 4</td>
<td>Continuing Intermediate Spanish</td>
<td>4</td>
<td>Degree Applicable, CSU, UC</td>
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<td></td>
<td>(CAN SPAN10)</td>
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<tr>
<td></td>
<td>72 hours lecture</td>
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<td></td>
<td>Prerequisite: SPAN 3 or equivalent</td>
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<td></td>
<td>Emphasis on increased proficiency in speaking,</td>
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<td></td>
<td>reading and writing Spanish. Review of grammar,</td>
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<td></td>
<td>increased vocabulary building. Readings and</td>
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<td></td>
<td>discussions on Hispanic cultural topics.</td>
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<tr>
<td></td>
<td>Introduction to Hispanic literature.</td>
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</tbody>
</table>

## SOC 99 — Special Projects in Sociology 2 Units

(May be taken four times for credit)

36 hours lecture

Offers students recognition for their academic interests and ability and the opportunity to explore their disciplines to greater depth, the various departments from time to time offer Special Projects courses. The content of each course and the methods of study vary from semester to semester and depend on the particular project under consideration. Students repeating this course will make individual contracts of a more advanced nature with the instructor to ensure that proficiencies are enhanced.

## SPAN 5 — Advanced Spanish 4 Units

(May be taken for option of letter grade or Pass/No Pass)

72 hours lecture

Prerequisite: SPAN 4 or equivalent

Emphasis is placed on increased proficiency in speaking, reading and writing Spanish. Cultural insights are developed through videos, movies and readings in Hispanic culture through different literary genres.

## SPAN 6 — Continuing Advanced Spanish 4 Units

(May be taken for option of letter grade or Pass/No Pass)

72 hours lecture

Prerequisite: SPAN 5 or equivalent

Advanced reading, discussing and writing in Spanish designed to provide further cultural insights into the Hispanic world through the study of cultural and literary readings. High level of proficiency in Spanish will be emphasized.

## SPAN 11 — Spanish for the Spanish Speaking 4 Units

72 hours lecture

Provides Spanish-speaking students without previous formal study of Spanish with the basis to improve skills in standard Spanish and to broaden their understanding of Hispanic cultures. Focuses on developing vocabulary, improving orthography and the use of grammatical structures, both oral and written. Class instruction conducted in Spanish.

## SPAN 12 — Continuing Spanish for the Spanish Speaking 4 Units

72 hours lecture

Prerequisite: SPAN 11 or equivalent

Provides Spanish-speaking students with previous formal study of Spanish with further development and improvement of skills in standard Spanish and a broader understanding of Hispanic cultures. Culturally-based topics are the focus of readings and class discussions. Class instruction conducted in Spanish.

## SPAN 25 — Spanish Literature 3 Units

(May be taken for option of letter grade or Pass/No Pass)

54 hours lecture

Prerequisite: SPAN 4 or equivalent

Introduction to the literatures of Mexico, other Spanish-American countries and Spain. All reading and lectures are in Spanish.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Prerequisites/Notes</th>
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</thead>
<tbody>
<tr>
<td>SPAN 53</td>
<td>Conversational Spanish</td>
<td>3</td>
<td>Degree Applicable, CSU, UC</td>
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<td>(May be taken option of letter grade or Pass/No Pass)</td>
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<td>54 hours lecture</td>
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<td></td>
<td>Prerequisite: SPAN 2 or equivalent</td>
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<td>Development of intermediate Spanish conversational skills. Emphasis on collaborative activities and practical use of the language. Extensive exposure to Hispanic culture. Grammar is presented in context.</td>
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<tr>
<td>SPAN 54</td>
<td>Continuing Conversational Spanish</td>
<td>3</td>
<td>Degree Applicable, CSU, UC</td>
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<td>(May be taken option of letter grade or Pass/No Pass)</td>
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<td>54 hours lecture</td>
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<td></td>
<td>Prerequisite: SPAN 53</td>
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<td>Development of advanced Spanish conversational skills. Emphasis on collaborative activities and practical use of the language. Extensive exposure to Hispanic culture. Grammar is presented in context.</td>
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<tr>
<td>SPAN 40</td>
<td>Intermediate Spanish for Health Professionals</td>
<td>4</td>
<td>Not Degree Applicable, CSU</td>
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<td></td>
<td>(May be taken option of letter grade or Pass/No Pass)</td>
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<td>72 hours lecture</td>
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<td>Prerequisite: SPAN 2 or equivalent</td>
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<td>Intermediate level Spanish for health care professionals emphasizing speaking, oral comprehension and cross-cultural communication within a health care setting. Includes the study of vocabulary, grammar, spoken and written language in context, and Hispanic culture in the U.S. especially as it relates to health care issues.</td>
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<tr>
<td>SPCH 1A</td>
<td>Public Speaking</td>
<td>3</td>
<td>Degree Applicable, CSU, UC</td>
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<td>(CAN SPCH04)</td>
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<td>54 hours lecture</td>
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<td></td>
<td>Prerequisite: Eligibility for ENGL 6B</td>
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<td>Study and apply rhetorical principles to research and analyze topics, organize sentence outlines, and deliver effective public speeches. Perform speaking and listening assignments that utilize effective verbal, vocal, and physical communicative strategies and critical/analytical techniques. Students may not receive credit for both SPCH 1A and SPCH 1AH.</td>
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<td>SPCH 1AH</td>
<td>Public Speaking - Honors</td>
<td>3</td>
<td>Degree Applicable, CSU, UC</td>
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<td>(CAN SPCH04)</td>
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<td>54 hours lecture</td>
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<td></td>
<td>Prerequisite: Acceptance into the Honors Program</td>
<td></td>
<td>Study and apply rhetorical principles to research and analyze topics, organize sentence outlines, and deliver effective public speeches. Perform speaking and listening assignments that utilize effective verbal, vocal, and physical communicative strategies and critical/analytical techniques. An honors course designed to provide an enriched experience. Students may not receive credit for both SPCH 1A and SPCH 1AH.</td>
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<tr>
<td>SPCH 1B</td>
<td>Intermediate Public Speaking</td>
<td>3</td>
<td>Degree Applicable, CSU, UC</td>
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<td>(May be taken option of letter grade or Pass/No Pass)</td>
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<td>54 hours lecture</td>
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<td></td>
<td>Prerequisite: SPCH 1A or SPCH 1AH</td>
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<td>Practice in extemporaneous speaking with stress on organization and delivery. Analyze, synthesize, criticize and advocate ideas, using inductive and deductive reasoning, distinguishing fact from opinion and avoiding fallacies of language and logic as critical thinkers both as alert members of an audience and as perceptive public speakers.</td>
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<td>SPCH 2</td>
<td>Voice and Diction</td>
<td>3</td>
<td>Degree Applicable, CSU, UC</td>
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<td>(May be taken option of letter grade or Pass/No Pass)</td>
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<td>54 hours lecture</td>
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<td>Improvement of the speaking voice and oral communication style, including proper use for control and projection of the voice, vocal expressiveness, articulation and pronunciation. Develops accuracy of sound production for standard American speech through use of the International Phonetic Alphabet. Emphasizes individual diagnosis and extensive oral practice.</td>
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<td>SPCH 3</td>
<td>Oral Interpretation of Literature</td>
<td>3</td>
<td>Degree Applicable, CSU, UC</td>
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<td>(May be taken option of letter grade or Pass/No Pass)</td>
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<td>54 hours lecture</td>
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<td>Develops an appreciation of various genres of literature through textual analysis, oral reading, and evaluation. Practical training is given in critical reading, editing, and performance of poetry, prose, drama, essay and experimental forms of performance text.</td>
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<td>SPCH 4</td>
<td>Readers Theater</td>
<td>3</td>
<td>Degree Applicable, CSU, UC</td>
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<td>(May be taken option of letter grade or Pass/No Pass)</td>
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<td>54 hours lecture</td>
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<td>Theory, principles, and techniques of the interpretation of literature in the medium of readers theater. There is programming and presentation of prose, poetry and drama by an ensemble of readers. Emphasis is placed on experimental presentations and on the development of analytical insight into literary forms.</td>
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<td>SPCH 5</td>
<td>Small Group Communication</td>
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<td></td>
<td>(CAN SPCH10)</td>
<td></td>
<td>54 hours lecture</td>
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<td></td>
<td>Principles of communication in a variety of small group contexts. Theory, application and evaluation of group communication processes, including problem-solving, conflict management, decision making, and leadership.</td>
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<tr>
<td>SPCH 6</td>
<td>Intercultural Communication</td>
<td>3</td>
<td>Degree Applicable, CSU, UC</td>
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<tr>
<td></td>
<td>(CAN SPCH06)</td>
<td></td>
<td>54 hours lecture</td>
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<tr>
<td></td>
<td>Theoretical dynamics of culture within communication contexts, and a practical exploration into improving intercultural communication competence for more effective interactions with others in a diverse society. Students may not receive credit for both SPCH 7 and SPCH 7H.</td>
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<tr>
<td>SPCH 7</td>
<td>Intercultural Communication Honors</td>
<td>3</td>
<td>Degree Applicable, CSU, UC</td>
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<tr>
<td></td>
<td>(May be taken option of letter grade or Pass/No Pass)</td>
<td></td>
<td>54 hours lecture</td>
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<tr>
<td></td>
<td>Prerequisite: Admittance into the Honors Program</td>
<td></td>
<td>Theoretical dynamics of culture within communication contexts, and a practical exploration into improving intercultural communication competence for more effective interactions with others in a diverse society. An honors course designed to provide an enriched experience. Students may not receive credit for both SPCH 7 and SPCH 7H.</td>
</tr>
<tr>
<td>SPCH 10</td>
<td>Speech Enhancement</td>
<td>1</td>
<td>Degree Applicable, CSU, UC</td>
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<tr>
<td></td>
<td>(May be taken four times for credit)</td>
<td></td>
<td>18 hours lecture</td>
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<tr>
<td></td>
<td>Prerequisite: SPCH 1A</td>
<td></td>
<td>Provides hands-on research, outlining, and anxiety reduction activities designed to enhance student success as a linked course with the basic public speaking course.</td>
</tr>
<tr>
<td>SPCH 12</td>
<td>Forensics: Context Speech and Debate</td>
<td>2</td>
<td>Degree Applicable, CSU, UC</td>
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<tr>
<td></td>
<td>(May be taken four times for credit)</td>
<td></td>
<td>18 hours lecture</td>
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<tr>
<td></td>
<td>Advisory: SPCH 1A or SPCH 1AH</td>
<td></td>
<td>Participation in intercollegiate speech tournaments through Mt. SAC Forensics Team. Instructions in preparatory procedures for these tournaments, including techniques in persuasive oratory, extemporaneous, interpretation, expository, impromptu, discussion, speech analysis, and debate. Student has option to choose area of interest and also an opportunity to participate in public community programs. Attendance required at one competition. Students who repeat this course will improve skills through further instruction and practice.</td>
</tr>
<tr>
<td>SPCH 13</td>
<td>Forensics: Individual Team Event</td>
<td>2</td>
<td>Degree Applicable, CSU, UC</td>
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<tr>
<td></td>
<td>(May be taken four times for credit)</td>
<td></td>
<td>108 hours lab</td>
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<tr>
<td></td>
<td>Advisory: SPCH 15</td>
<td></td>
<td>Students develop speech performance skills and participate in multiple intercollegiate speaking competitions, festivals, and/or public events as members of the Mt. SAC Forensics Team. Emphasis is on individual speaking events, including public address and oral interpretation of literature along with receiving critiques from judges and utilizing directed self-study. Students who repeat this course will improve skills through further instruction and practice. Public or tournament performance required.</td>
</tr>
</tbody>
</table>
### COURSE DESCRIPTIONS

#### SPCH 17 — Forensics: Debate Team 2 Units
(May be taken four times for credit)
108 hours lab
Corequisite: SPCH 15
Students develop speaking and argumentation skills and participate in multiple inter-collegiate speaking competitions, festivals, and/or public events as members of the Mt. SAC Forensics Team. Students will perform in one or more Reader's Theater pieces. Students who repeat this course will improve skills through further instruction and practice. Public or tournament performance required.

#### SPCH 18 — Forensics: Readers Theater Team 2 Units
(May be taken four times for credit)
108 hours lab
Corequisite: SPCH 15
Students develop speech performance skills and participate in multiple intercollegiate speaking competitions, festivals, and/or public events as members of the Mt. SAC Forensics Team. Students will perform in one or more Reader's Theater pieces. Students who repeat this course will improve skills through further instruction and practice. Public or tournament performance required.

#### SPCH 20 — Argumentation and Debate 3 Units
(CAN SPCH06)
54 hours lecture
Prerequisite: SPCH 1A or SPCH 1AH or equivalent
Emphasis is given to logical principles of argumentation, both theory and practice.

#### SPCH 20H — Argumentation and Debate - Honors 3 Units
(CAN SPCH06)
54 hours lecture
Prerequisite: SPCH 1A or SPCH 1AH and acceptance into the Honors Program
Emphasis is given to logical principles of argumentation, both theory and practice. An honors course designed to provide an enriched experience. Students may not receive credit for both SPCH 20 and SPCH 20H.

#### SPCH 26 — Interpersonal Communication 3 Units
(CAN SPCH08)
54 hours lecture
Prerequisite: Eligibility for ENGL 68
Principles of verbal and nonverbal transactions that occur in everyday face-to-face communication. Study of theory and research findings and their application to communication in professional and personal relationships.

#### SPCH 26H — Interpersonal Communication - Honors 3 Units
(CAN SPCH08)
54 hours lecture
Prerequisite: Acceptance into the Honors Program
Principles of verbal and non-verbal transactions that occur in everyday face-to-face communication. Study of theory and research findings and their application to communication in professional and personal relationships. An honors course designed to provide an enriched experience. Students may not receive credit for both SPCH 26 and SPCH 26H.

#### SPCH 68 — Preparation for Public Speaking 3 Units
18 hours lecture
Advisory: Eligibility for ENGL 67
A single purpose course designed to support learning in either an academic field or in a vocation. Provides awareness of how the brain functions and applications of that knowledge to test-taking and effective listening strategies.

#### STDY 80 — Studying and Learning: Foundations for Success 3 Units
(May be taken for Pass/No Pass only)
54 hours lecture
Advisory: Eligibility for ENGL 67
A single purpose course designed to support learning in either an academic field or in a vocation. Provides awareness of how the brain functions and applications of that knowledge to test-taking and effective listening strategies.

#### STDY 85A — Test-Taking and Stress Management 1 Unit
18 hours lecture
Advisory: Eligibility for ENGL 67
A single purpose course designed to support learning in either an academic field or in a vocation. Provides support in managing stress and anxiety. Includes multiple speaking and anxiety reduction activities.
### SURVEYING

**SURV 1A — Surveying** 3 Units  
(CAN ENGR10) Degree Applicable, CSU, UC  
(May be taken for option of letter grade or Pass/No Pass)  
54 hours lecture  
54 hours lab  
Prerequisite: MATH 150  
Surveying fundamentals; use and care of surveying instruments including steel tape, engineer's level, theodolite and total station; horizontal and vertical measurements; layout, traverse, area computations; analysis and adjustments of systematic and random errors; stadia surveying; mapping.

**SURV 1B — Surveying** 3 Units  
Degree Applicable, CSU, UC  
(May be taken for option of letter grade or Pass/No Pass)  
36 hours lecture  
54 hours lab  
Prerequisite: SURV 1A  
Construction surveying; volumes; property surveying; control surveys; California coordinate system; horizontal and vertical curves; introduction to electronic, photogrammetric, and G.I.S. methods; mapping project; introduction to the method of least squares; land survey descriptions; astronomical observations.

### TECHNOLOGY-RELATED COURSES

#### TECH 60 — Customer Relations for the Technician 1 Unit  
Degree Applicable  
18 hours lecture  
Customer relations (soft skills) for the technician including benefits of knowing and using effective customer contact tools, proper customer interactions, ethics, and maintaining customer satisfaction.

#### THEATER ARTS

**THTR 9 — Introduction to Theatre Arts** 3 Units  
(CAN DRAM18) Degree Applicable, CSU, UC  
54 hours lecture  
A comprehensive introduction to the theater, including the aesthetic, artistic, technical, and business aspects.

**THTR 10 — History of Theatre Arts** 3 Units  
Degree Applicable, CSU, UC  
54 hours lecture  
Prerequisite: Eligibility for ENGL 1A  
Designed to present an appreciative background to dramatic literature and to the development of dramatic art. Representative plays and the history development of the living stage will be stressed.

**THTR 11 — Principles of Acting I** 3 Units  
(CAN DRAM08) Degree Applicable, CSU, UC  
54 hours lecture  
Introduction to the basic principles and techniques of acting as an artistic discipline. Analysis of the plot, characterization and language of the drama. Performances of laboratory scenes, readings and exercises.

**THTR 12 — Principles of Acting II** 3 Units  
(CAN DRAM22) Degree Applicable, CSU, UC  
54 hours lecture  
Prerequisite: THTR 11  
Advanced study of principles presented in DRMA 11. An investigation of acting techniques through the study and presentation of varied dramatic scenes.

**THTR 13 — Stagecraft** 3 Units  
(CAN DRAM12) Degree Applicable, CSU, UC  
(May be taken two times for credit)  
54 hours lecture  
Prerequisite: SURV 1A  
Construction surveying; volumes; property surveying; control surveys; California coordinate system; horizontal and vertical curves; introduction to electronic, photogrammetric, and G.I.S. methods; mapping project; introduction to the method of least squares; land survey descriptions; astronomical observations.

**THTR 14 — Stagecraft** 3 Units  
(CAN DRAM16) 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  
Participation under faculty supervision in the planning, preparation and presentation of college-sponsored dramatic presentations. Emphasis on the acting with some technical theatre assignments. Students who repeat this course will improve skills through further instruction and practice.

**THTR 15 — Play Rehearsal and Performance** 2 Units  
(CAN DRAM16) 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  
Participation under faculty supervision in the planning, preparation and presentation of college-sponsored dramatic presentations. Emphasis on the acting with some technical theatre assignments. Students who repeat this course will improve skills through further instruction and practice.

**THTR 16 — Theatrical Make-Up** 2.5 Units  
(CAN DRAM14) Degree Applicable, CSU, UC  
36 hours lecture  
36 hours lab  
Prerequisite: THTR 11  
An introduction to the theory and practice of make-up for the stage. The student will gain practice in the design and application of practical, stylized character, and other make-up techniques.

**THTR 17 — Acting for Television** 3 Units  
Degree Applicable, CSU, UC  
54 hours lecture  
Prerequisite: THTR 11  
Assists students to prepare for an occupation in the performing areas of television and film. Background, methodology and techniques of acting for the camera. Includes TV equipment and how to make it work for the TV actor; study of image, type and character with practical exercises and scenes in various styles such as TV drama, sit-coms, news, commercials.

**THTR 18 — Technical Theater Practicum** 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  
Participation in the technical preparation and operation of productions presented to the community. The student will be involved in one or more of the following areas: stage scenery construction, stage lighting set up, property construction, stage sound set up, costume construction and make-up. Crew assignments will be given to the student upon enrollment. The availability of assignments is contingent upon the requirements of the production. Students who repeat this course will improve skills through further instruction and practice.

**THTR 24 — Introduction to Theatrical Design** 3 Units  
Degree Applicable, CSU  
36 hours lecture  
54 hours lab  
Prerequisite: THTR 14  
Sketching and a variety of media techniques for scenic design for theatre arts. Development of a scenic floor plan, elevations and rendering. Application of basic techniques of drawing and drafting theatrical scenery. Color theory, research, design concept and design process to be studied in depth.

**THTR 25 — Theatrical Playwriting** 3 Units  
Degree Applicable, CSU  
36 hours lecture  
54 hours lab  
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 well known authors and productions. Includes basics of linear broken linear, episodic, ‘A’-’B’ and ritual structures.

**THTR 60 — Children's Theatre** 3 Units  
Degree Applicable, CSU  
36 hours lecture  
72 hours lab  
Prerequisite: THTR 11  
Theory and practice of children’s theater. Evaluates play production techniques and literature for an audience of children. Includes analysis of plays for children and actual experience in acting and producing children’s plays for public presentation. Students who repeat this course will improve skills through further instruction and practice. Field trips are required.

**THTR 62 — Advanced Acting Scenework** 1 Unit  
Degree Applicable, CSU  
(May be taken four times for credit)  
54 hours lab  
Prerequisite: THTR 11  
Advanced acting workshop that focuses on the development and refinement of two-person acting scenes.
### COURSE DESCRIPTIONS

#### TUTOR TRAINING

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Degree/Applicability</th>
</tr>
</thead>
<tbody>
<tr>
<td>TUTR 99</td>
<td>Special Projects in Theatre</td>
<td>2</td>
<td>Degree Applicable, CSU</td>
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<tr>
<td></td>
<td>(May be taken four times for credit)</td>
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<tr>
<td>TUTR 10C</td>
<td>Tutoring as a Supplemental Instructor</td>
<td>1</td>
<td>Not Degree Applicable</td>
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<tr>
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<td>(May be taken for Pass/No Pass only)</td>
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<tr>
<td>TUTR 10R</td>
<td>Tutoring as a Supplemental Instructor</td>
<td>1</td>
<td>Not Degree Applicable</td>
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<td>(May be taken for Pass/No Pass only)</td>
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#### TRANSPORTATION

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<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Degree/Applicability</th>
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</thead>
<tbody>
<tr>
<td>TRAN 17</td>
<td>Air Transportation</td>
<td>3</td>
<td>Degree Applicable</td>
</tr>
<tr>
<td></td>
<td>(May be taken for Pass/No Pass only)</td>
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<tr>
<td>TRAN 19</td>
<td>Air Law and Regulation</td>
<td>2</td>
<td>Degree Applicable</td>
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<td>(May be taken for Pass/No Pass only)</td>
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#### WATER TECHNOLOGY

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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Degree/Applicability</th>
</tr>
</thead>
<tbody>
<tr>
<td>WATR 60</td>
<td>Introduction to Water Systems</td>
<td>3</td>
<td>Degree Applicable</td>
</tr>
<tr>
<td></td>
<td>(May be taken for option of letter grade or Pass/No Pass)</td>
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<tr>
<td>WATR 61</td>
<td>Water Treatment</td>
<td>3</td>
<td>Degree Applicable</td>
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#### WELDING

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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Degree/Applicability</th>
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</thead>
<tbody>
<tr>
<td>WELD 30</td>
<td>Metal Sculpture</td>
<td>2</td>
<td>Degree Applicable, CSU</td>
</tr>
<tr>
<td></td>
<td>(May be taken for option of letter grade or Pass/No Pass)</td>
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<td>WATR 60</td>
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<tr>
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<td>Degree Applicable, CSU</td>
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<td>Course Code</td>
<td>Course Title</td>
<td>Units</td>
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<tr>
<td>WELD 40</td>
<td>Introduction to Welding</td>
<td>2</td>
<td>Degree Applicable</td>
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<tr>
<td></td>
<td>18 hours lecture</td>
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<tr>
<td></td>
<td>54 hours lab</td>
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<tr>
<td></td>
<td>Fundamentals of welding processes related to the areas of fabrication, construction, machine tool, aerospace and the transportation industries.</td>
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<tr>
<td>WELD 50</td>
<td>Oxyacetylene Welding</td>
<td>2</td>
<td>Degree Applicable</td>
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<tr>
<td></td>
<td>18 hours lecture</td>
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<td></td>
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<tr>
<td></td>
<td>54 hours lab</td>
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<td></td>
<td>Oxyacetylene fusion welding, non-fusion welding and cutting. Develops understanding of and fundamental skills in modern welding practices.</td>
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<tr>
<td>WELD 51</td>
<td>Basic Electric Arc Welding</td>
<td>2</td>
<td>Degree Applicable</td>
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<tr>
<td></td>
<td>18 hours lecture</td>
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<tr>
<td></td>
<td>54 hours lab</td>
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<td>Basic electric arc welding, weld symbols, standard electrode and alloy electrode selection, American Welding Society (AWS) procedure for certification.</td>
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<tr>
<td>WELD 53A</td>
<td>Welding Metallurgy</td>
<td>3</td>
<td>Degree Applicable</td>
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<td></td>
<td>54 hours lecture</td>
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<tr>
<td>WELD 60</td>
<td>Print Reading and Computations for Welders</td>
<td>3</td>
<td>Not Degree Applicable</td>
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<tr>
<td></td>
<td>54 hours lecture</td>
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<tr>
<td>WELD 70A</td>
<td>Beginning Arc Welding</td>
<td>3</td>
<td>Degree Applicable</td>
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<tr>
<td></td>
<td>18 hours lecture</td>
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<td></td>
<td>108 hours lab</td>
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<td>Develops manipulative skills and techniques for the beginning student welder on the shield metal arc (SMAW) and the flux cored arc (FCAW) welding processes in the flat and horizontal positions using AC and DC welding currents on carbon steel.</td>
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<tr>
<td>WELD 70B</td>
<td>Intermediate Arc Welding</td>
<td>3</td>
<td>Degree Applicable</td>
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<tr>
<td></td>
<td>18 hours lecture</td>
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<td></td>
<td>108 hours lab</td>
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<tr>
<td>WELD 70C</td>
<td>Certification for Welders</td>
<td>3</td>
<td>Degree Applicable</td>
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<tr>
<td></td>
<td>18 hours lecture</td>
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<td></td>
<td>108 hours lab</td>
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<tr>
<td>WELD 80</td>
<td>Fabrication and Construction Welding</td>
<td>3</td>
<td>Degree Applicable</td>
</tr>
<tr>
<td></td>
<td>18 hours lecture</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>108 hours lab</td>
<td></td>
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<tr>
<td>WELD 81</td>
<td>Pipe and Tube Welding</td>
<td>3</td>
<td>Degree Applicable</td>
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<tr>
<td></td>
<td>18 hours lecture</td>
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<tr>
<td></td>
<td>108 hours lab</td>
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<td>Advanced course designed to enable students with “all positions” welding skills in SMAW to apply welding skills to the pipe welding industry. Welding processes will include SMAW, GMAW, GMAW, FCAW on a variety of materials and configurations on subcritical and critical piping and tubing.</td>
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<tr>
<td>WELD 90A</td>
<td>Gas Tungsten Arc Welding</td>
<td>3</td>
<td>Degree Applicable</td>
</tr>
<tr>
<td></td>
<td>18 hours lecture</td>
<td></td>
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<tr>
<td></td>
<td>108 hours lab</td>
<td></td>
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<tr>
<td>WELD 90B</td>
<td>Semiautomatic Arc Welding Process</td>
<td>3</td>
<td>Degree Applicable</td>
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<td></td>
<td>18 hours lecture</td>
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<tr>
<td>WELD 91</td>
<td>Automotive Welding, Cutting and Modification</td>
<td>3</td>
<td>Not Degree Applicable</td>
</tr>
<tr>
<td></td>
<td>18 hours lecture</td>
<td></td>
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<tr>
<td>WELD 96</td>
<td>Work Experience in Welding</td>
<td>1</td>
<td>Degree Applicable</td>
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<tr>
<td></td>
<td>1 to 4 Units</td>
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<tr>
<td></td>
<td>75 to 300 hours lab</td>
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<td></td>
<td>Provides actual on-the-job experience in welding at an approved work site which is related to classroom instruction. A minimum of 75 paid or 60 non-paid clock hours per semester of supervised work is required for each unit of credit. Students who repeat this course will improve skills through further instruction and practice.</td>
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</table>
Section 11

Continuing Education
Continuing Education

CONTINUING EDUCATION (ADULT EDUCATION) COURSES
Noncredit courses are designed to meet the special needs and capabilities of those students who do not desire or need to obtain college unit credit. These courses provide developmental, occupational and other general education opportunities. Courses and programs are further defined categorically under the California Education Code, Section 84711, whereby state funding is authorized for nine specific categories as follows: Parenting; Basic Skills (including tutoring); English as a Second Language; Citizenship; Programs for the Handicapped; Vocational Courses; Programs for the Older Adult; Home Economics; Health and Safety; and additional courses qualified for adult education curricula.

Student Services
Admissions and Registration
For Continuing Education (noncredit) and Community Services (fee-based) offerings, admission and registration is completed using a registration card. However, enrollment in ESL and/or Basic Skills courses requires assessment and orientation prior to registration (see explanations, following). Students may register for most courses at any time during the semester, on a space available basis. Noncredit and fee-based offerings are available to community members regardless of residency status.

Assessment
Basic Skills students are assessed prior to enrolling in courses. Additional assessments are available for specific needs. Basic Skills assessment services include testing for academic skill levels, learning strengths, career paths, and learning disabilities. For more information, contact (909) 594-5611, ext. 4845.

ESL students must be assessed prior to enrollment. Placement testing is offered every Thursday, year-round. Multilingual assistance is available. For more information, contact (909) 594-5611, ext. 5235.

Orientation
Basic Skills and ESL students must attend an orientation session prior to registration. Orientation sessions are generally offered immediately after assessment.

Counseling and Advisement
Educational advisement services are available in the Continuing Education Division office, the Administration Building, building 4, room 221D, during the first week of registration and at the beginning of each semester for career and educational planning. These educational advisement services are also on-going throughout the semester through the Continuing Education Center. To schedule an individual appointment, students should call the Continuing Education Center, (909) 594-5611, ext. 4845.

The Basic Skills and ESL departments provide counselors and educational advisors to serve their students. Assistance to noncredit students includes development of Educational and Career Plans, identification of personal, academic and career goals, career skill practice and resources, transitioning to credit programs, and assessment of special needs.

Fees and Expenses
There is no tuition for noncredit courses. However, some courses include a fee for materials provided to students. In addition, students who park on the Mt. San Antonio College campus must have a valid, current parking permit. Permits may be purchased in the Administration Building, building 4, lower level. Books and supplies needed for a class are the responsibility of the student unless specifically noted as provided by a material fee.

Credit/Noncredit Combined Courses
The Division offers many credit classes to Continuing Education students for noncredit. Students may enroll in these classes in accordance with procedures outlined in the Continuing Education class schedule. Students will not receive college credit. However, students enrolled in these classes who wish to receive a certificate of completion are expected to complete all assignments including tests, quizzes, projects and examinations. (A list of Noncredit Certificate Programs is provided beginning on page 215 of this catalog.)

Students wishing to complete a noncredit certificate program in one of the occupational areas of study must apply to the Continuing Education Division office, the Administration Building, building 4, room 221D, to initiate the issuance of a certificate.

Basic Skills and Special Programs
The Basic Skills and Special Programs department works with local K-12 districts, county and state agencies to provide programs to students with special and/or basic skills needs. Courses and services include:

- Basic Skills Remediation
- GED Preparation and Testing
- Adult High School Diploma Program
- High School Referral Program (High school make-up credit)
- Summer High School Program
- Athlete Tutoring and Student Support (WIN Program)
- Parent Education Courses
- Armed Services Vocational Aptitude Battery (ASVAB) Preparation
- Support Services to Careers in Childcare Program Students
- High School and Career Counseling; Educational Advising
- Computer Literacy and Keyboarding Classes
- Typing Test Certification

For more information on Basic Skills and Special Programs, contact (909) 594-5611, ext. 4845.

English as a Second Language
ESL classes are provided for English language learners at all levels of proficiency, from low literacy to advanced, transitioning to credit. Classes and services include:

- Assessment for level placement (Pre-Level 1 - Level 6)
- Core level classes focusing on integrated skills (grammar, listening, speaking, reading, and writing)
- Skill-focused classes (Speaking A-C, Writing A-C)
- Specialized courses (TOEFL preparation, Citizenship preparation)
- Vocational ESL (Career Paths)
- Contract ESL customized for the workplace
- Career guidance and counseling

For more information on ESL programs located in the Language Center, Building 66, contact (909) 594-5611, ext. 5235.

Language Learning Center
Mt. San Antonio College's Language Learning Center (LLC) provides a laboratory in which students may practice ESL and a variety of foreign languages, including Chinese, English, French, German, Italian, Japanese, Spanish and Sign Language. Located in the Learning Technology Center, building 6, room 264, the LLC is available on a noncredit and credit basis. Users of the LLC may register year-round. Offerings include:

- Interactive language software in all supported languages
- DVDs, videos, audio recordings
- Pronunciation software
- Computer Aided Testing for Federal Aviation Administration and Chiropractic tests

For more information on the LLC, contact (909) 594-5611, ext. 4580.

Exercise Science and Wellness Center
The Exercise Science and Wellness Center provides an exercise facility which includes cardio and strengthening equipment, a variety of exercise classes led by certified instructors and specialized fitness testing. It welcomes community members as well as Mt. San Antonio College students and employees. Individuals can register at the Continuing Education Registration office in the Administration Building, building 4, room 221D, or in the Wellness Center. For more information, contact (909) 594-5611, ext. 4625.
Community Health Programs and CPR
The College offers courses such as First Aid, Heartsaver, AED and more.
- Records rosters and information updates per American Heart Association (AHA) requirements
- Provides videos, texts and manikins per AHA requirements
For more information, contact (909) 594-5611, ext. 4838.

Health Careers Resource Center (HCRC)
The Center provides the resources to increase student knowledge base, to learn new skills and to reinforce previously learned skills. Resources are provided to anyone involved or interested in health occupations. The HCRC provides a state-of-the-art learning lab environment to:
- develop new health related skills/knowledge
- update prior or current knowledge
- participate in simulated clinical activities which will promote success in the health care industry.
The center is open to credit and noncredit health career students, community health care workers/professionals, individuals preparing for health related licensure or certification exams and any individual involved or interested in health related careers. Some of the campus programs/departments actively utilizing the center include:
- Technology and Health Division
- Medical Services – EMT, Paramedic, PA Prep
- Mental Health Technology
- Nursing
- Radiologic Technology
- Respiratory Therapy
- Community and Non-Credit Education Division
- Long-Term and Acute Certified Nursing Assistant (C.N.A.)
- RN Re-entry Into Practice
- IV Therapy, CPR
- Health Care Interpreting
- International Health Worker
- Physical Therapy Aide

Health Careers Resource Center Available Services
- RN assistance in clinical skills practice and performance evaluation
- Medical and hospital equipment/supplies/ manikins/ training aids for hands on demonstrations and application of basic, intermediate and advanced skills
- Health Skills Performance Update/ Evaluation
- Clinical simulations for Med-Surg, Psych, OB, Pediatrics, Perioperative etc.

Self-Paced, Multisensory Learning Aides
- Expansive Technology Library on all health subjects
- Medical/Nursing resource books, journals
- ADAM programs for anatomy and physiology review
- Mock computer adaptive testing programs for NCLEX- RN and PN State Board Exam preparation
- Computer adaptive instruction for gaining or remediating math, pharmacology, dosage calculation skills or medication administration skills
- Internet access for searching full-text article databases and access lists of pre-evaluated web sites on all lab computers
- Computerized virtual clinical simulation programs
- Medical terminology and bilingual media for International learners

Older Adult Program*
Courses designed for older adults (age 55+ years) provide the full continuum of education from vocational classes to the pursuit of long-standing educational goals. Classes are offered in the arts, personal growth, physical and mental fitness and vocational areas, and are conducted both on campus and at various senior and community centers and residential facilities throughout the Mt. San Antonio College District.

Mountie Volunteer Program (MVP)
The MVP Program coordinates and provides volunteer opportunities on campus while providing training and support services for MVP participants. Partnering with the Retired Senior Volunteer Program (RSVP) of the greater Pomona Valley, the program provides for the recruiting and screening of potential volunteers.

Generations Program
The Generations Program provides educational activities which foster intergenerational relationships that link generations for the good of society, such as student athletes providing volunteer hours for the Older Adult Program.
For more information on Older Adult Programs, please call (909) 594-5611, ext. 4192.

Other Continuing Services and Programs
- Fee-based programs related to career development and personal enrichment for community members
- College 4 Kids and Youth Programs
- CPR and First Aid
- Vehicle Safety Programs (Motorcycle, Traffic School, Driver’s Training)
- Continuing Education Fitness Programs
- Farm Tours
- Wildlife Sanctuary Tours
- Planetarium Shows
- Study Skills Laboratory for Disabled Students Programs and Services
- San Gabriel Valley Training Center (serving developmentally disabled adults)

For more information regarding Continuing Education Services and Programs, contact (909) 594-5611, ext. 4220.

*Note: Although courses are designed for the older adult, anyone 18 years of age and older may enroll.
## Certificates of Competency

- Basic Skills ........................................ 216
- Career Development ................................ 216
- English as a Second Language ...................... 216
- Secondary Education ................................ 216

## Certificates in Occupational Training

- Accounting ........................................... 217
- Bookkeeping ........................................... 217
- Computerized ......................................... 217
- Payroll .................................................. 217
- Agricultural Science .................................. 217
- Floral Design ........................................... 217
- Horse Ranch Management ............................ 217
- Interior Landscaping ................................... 217
- Landscape and Park Maintenance ................... 217
- Landscape Design and Construction ............... 217
- Landscape Irrigation ................................... 217
- Livestock Management ................................ 218
- Nursery Management ................................... 218
- Park Management ...................................... 218
- Pet Science ............................................. 218
- Sports Turf Management ............................. 218
- Tree Care and Maintenance ......................... 218
- Business Management ............................... 219
- Business Management – Level 1 ................... 219
- Business Management – Level 2 ................... 219
- Business Management – Level 3 ................... 219
- Human Resource Management ..................... 219
- International Business – Level 1 ................. 219
- International Business – Level 2 ................. 219
- Retail Management – Level 1 ..................... 219
- Retail Management – Level 2 ..................... 219
- Retail Management – Level 3 ..................... 220
- Small Business Management – Level 1 .......... 220
- Small Business Management – Level 2 .......... 220

### NONCREDIT LIST OF CERTIFICATES

<table>
<thead>
<tr>
<th>Certificate</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electronics</td>
<td>220</td>
</tr>
<tr>
<td>Computer and Networking Technology – Level 1</td>
<td>220</td>
</tr>
<tr>
<td>Computer Systems Technology</td>
<td>220</td>
</tr>
<tr>
<td>Electronic Assembly and Fabrication</td>
<td>220</td>
</tr>
<tr>
<td>Electronic Cabling and Wiring Technology – Level 1</td>
<td>220</td>
</tr>
<tr>
<td>Electronic Cabling and Wiring Technology – Level 2</td>
<td>220</td>
</tr>
<tr>
<td>Electronic Technology</td>
<td>221</td>
</tr>
<tr>
<td>Electronics and Computer-Engineering Technology</td>
<td>221</td>
</tr>
<tr>
<td>Electronics Communications</td>
<td>221</td>
</tr>
<tr>
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<td>221</td>
</tr>
<tr>
<td>Health Careers</td>
<td>221</td>
</tr>
<tr>
<td>Certified Nursing Assistant</td>
<td>221</td>
</tr>
<tr>
<td>Health Care Interpreting</td>
<td>221</td>
</tr>
<tr>
<td>Manufacturing Technology</td>
<td>222</td>
</tr>
<tr>
<td>Industrial Electronics</td>
<td>221</td>
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<tr>
<td>MasterCAM</td>
<td>222</td>
</tr>
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<td>Parametric Solid Modeling</td>
<td>222</td>
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<tr>
<td>SurfCAM</td>
<td>222</td>
</tr>
<tr>
<td>Office Technology</td>
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<tr>
<td>Administrative Assistant – Level 1</td>
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<tr>
<td>Administrative Assistant – Level 2</td>
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<tr>
<td>Data Entry</td>
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<td>Medical Office Specialist</td>
<td>222</td>
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<tr>
<td>Office Computer Applications</td>
<td>222</td>
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<td>Photographics</td>
<td>223</td>
</tr>
<tr>
<td>Computer Graphics Design / Photography</td>
<td>223</td>
</tr>
<tr>
<td>Photography</td>
<td>223</td>
</tr>
<tr>
<td>Special Needs Population</td>
<td>223</td>
</tr>
<tr>
<td>Job Readiness Skills</td>
<td>223</td>
</tr>
<tr>
<td>Welding Technologies</td>
<td>223</td>
</tr>
<tr>
<td>Welding</td>
<td>223</td>
</tr>
<tr>
<td>Licensed Welder</td>
<td>223</td>
</tr>
<tr>
<td>Welder with Concentration in Automotive Welding</td>
<td>224</td>
</tr>
<tr>
<td>Cutting and Modification</td>
<td>224</td>
</tr>
<tr>
<td>Welder with Concentration in Gas Tungsten ARC Welding</td>
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</tr>
<tr>
<td>Welder with Concentration in Semiautomatic ARC Welding</td>
<td>224</td>
</tr>
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</table>
### 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.

<table>
<thead>
<tr>
<th>Basic Skills</th>
<th>SYS #102892</th>
</tr>
</thead>
<tbody>
<tr>
<td>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, read, write, and comprehend, and progress in this sequence based on individual needs. Courses are offered daily and evenings to accommodate work and personal schedules. For more information, please call (909) 594-5611, ext. 4845.</td>
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</table>

<table>
<thead>
<tr>
<th>Certificate Requirements:</th>
<th>Course ID</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>BS ABE01</td>
<td>Career Information and Guidance</td>
<td></td>
</tr>
<tr>
<td>BS ABE02</td>
<td>Adult Basic Education</td>
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</tr>
<tr>
<td>BS ABE03</td>
<td>Adult Basic Education – Leadership Development</td>
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</tr>
<tr>
<td>BS ABE04</td>
<td>Guidance and Orientation to Special Programs</td>
<td></td>
</tr>
<tr>
<td>BS ABE05</td>
<td>Basic Skills Foundation</td>
<td></td>
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<tr>
<td>BS ABE06</td>
<td>Career Development</td>
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<tr>
<td>BS ABE07</td>
<td>Re-Entry Work Skills Needed for Today’s Workforce</td>
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<tr>
<td>BS CHN5</td>
<td>Career/Life Planning</td>
<td></td>
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<table>
<thead>
<tr>
<th>English as a Second Language</th>
<th>SYS #784025</th>
</tr>
</thead>
<tbody>
<tr>
<td>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 listening 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) 594-5611, ext. 5235.</td>
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<thead>
<tr>
<th>Certificate Requirements:</th>
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<tbody>
<tr>
<td>ESL PLVL1</td>
<td>ESL – Pre-Level 1</td>
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<td>ESL PLL1</td>
<td>ESL – Level 1</td>
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<tr>
<td>ESL PLL2</td>
<td>ESL – Level 2</td>
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<tr>
<td>ESL PLL3</td>
<td>ESL – Level 3</td>
<td></td>
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<tr>
<td>ESL PLL4</td>
<td>ESL – Level 4</td>
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<tr>
<td>ESL PLL5</td>
<td>ESL – Level 5</td>
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<td>ESL PLL6</td>
<td>ESL – Level 6</td>
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<tr>
<td>ESL SPEAK 1</td>
<td>ESL – Speaking A</td>
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<td>ESL SPEAK 2</td>
<td>ESL – Speaking B</td>
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<tr>
<td>ESL SPEAK 3</td>
<td>ESL – Speaking C</td>
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<thead>
<tr>
<th>TOEFL Preparation</th>
<th>SYS #244852</th>
</tr>
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<tbody>
<tr>
<td>Career development provides students with information and guidance on college opportunities, careers, and life planning. Students can apply skills gained to their current employment and personal lives and will improve their opportunities to advance in their careers or transition into a new career. This sequence of courses is offered days and evenings to accommodate adults with alternating schedules. For more information, please call (909) 594-5611, ext. 4845.</td>
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</table>

<table>
<thead>
<tr>
<th>Certificate Requirements:</th>
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<tbody>
<tr>
<td>ESL WR1</td>
<td>ESL Writing A</td>
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<td>ESL WR2</td>
<td>ESL Writing B</td>
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<td>ESL WR3</td>
<td>ESL Writing C</td>
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<tr>
<td>ELS LANG1</td>
<td>English for Special Uses</td>
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<tr>
<td>BLS LANG1</td>
<td>Language Skills Laboratory</td>
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<tr>
<td>ELS WHIL</td>
<td>English as a Second Language for Health Professionals</td>
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</table>

<table>
<thead>
<tr>
<th>Secondary Education</th>
<th>SYS #259121</th>
</tr>
</thead>
<tbody>
<tr>
<td>The High School Program provides all courses needed to satisfy requirements for a high school diploma. Students earning a high school diploma increase future employment and educational opportunities, including college and training programs. Completion of these courses will provide the student with a high school diploma. For more information, please call (909) 594-5611, ext. 4845.</td>
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<table>
<thead>
<tr>
<th>Certificate Requirements:</th>
<th>Course ID</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>BSHS ALG1</td>
<td>High School Algebra 1</td>
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<tr>
<td>BSHS ALG2</td>
<td>High School Algebra 2</td>
<td></td>
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<tr>
<td>BSHS ART1</td>
<td>High School Art and Creative Expression</td>
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<tr>
<td>BSHS ART2</td>
<td>High School Art 2</td>
<td></td>
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<tr>
<td>BSHS BIO</td>
<td>High School Biology</td>
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<tr>
<td>BSHS CHEM</td>
<td>High School Chemistry</td>
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<tr>
<td>BSHS CHN1</td>
<td>High School Chinese 1</td>
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<tr>
<td>BSHS CIV</td>
<td>High School Civics/American Government</td>
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<tr>
<td>BSHS CPTC</td>
<td>High School Computer Technology</td>
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<tr>
<td>BSHS DIPR</td>
<td>High School Diploma and Referral</td>
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<tr>
<td>BSHS ECN</td>
<td>High School Economics</td>
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<tr>
<td>BSHS EELA</td>
<td>High School CAHSEE Prep – English Language Arts</td>
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<tr>
<td>BSHS EEMA</td>
<td>High School CAHSEE Prep – Mathematics</td>
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<tr>
<td>BSHS ENG1</td>
<td>High School English 1</td>
<td></td>
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<tr>
<td>BSHS ENG2</td>
<td>High School English 2</td>
<td></td>
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<tr>
<td>BSHS ENG3</td>
<td>High School English 3</td>
<td></td>
</tr>
<tr>
<td>BSHS ENG4</td>
<td>High School English 4</td>
<td></td>
</tr>
<tr>
<td>BSHS GEOG</td>
<td>High School Geography</td>
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<tr>
<td>BSHS GEOI</td>
<td>High School Geography</td>
<td></td>
</tr>
<tr>
<td>BSHS GRAP</td>
<td>High School Advanced Graphics/Printing</td>
<td></td>
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<tr>
<td>BSHS HLN1</td>
<td>High School Health</td>
<td></td>
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<tr>
<td>BSHS JOUR</td>
<td>High School Journalism</td>
<td></td>
</tr>
<tr>
<td>BSHS KEY</td>
<td>High School Typing/Keyboarding</td>
<td></td>
</tr>
<tr>
<td>BSHS LSC</td>
<td>High School Life Science</td>
<td></td>
</tr>
</tbody>
</table>

### OCCUPATIONAL TRAINING

Certificates in a variety of vocational programs are available through the Continuing Education Division. Many of these certificate programs mirror those offered through the credit programs of the College, are favorably recognized by business and industry, and are frequently used as a requirement for professional advancement. Classes are offered days, evenings, and weekends. To register, call (909) 594-5611, ext. 4220.
How to Finish an Occupational Certificate

In order for students to receive a Certificate of Completion, the student must do the following:

- Register and pay material fees if required for desired classes
- Attend a minimum of 75% of required class hours
- Satisfactorily complete coursework, papers and projects, take and pass mid-terms and final with the equivalent of a “C” grade
- When all courses are completed, apply to the Continuing Education Office

Attendance and signatures will be verified by the Continuing Education Division staff. If all requirements are met, a Certificate of Completion will be prepared and delivered to the student.

Getting Help

For more information regarding occupational training certificates, please call the Division office at (909) 594-5611, ext. 4220.

Educational Advisers are available to assist students with Career and Education Planning. During the first week of registration, they are available in the registration area, the Administration Building, building 4, room 2210. Times will be posted and students served on a first-come, first-served basis. Advisers are also available by appointment during the semester. Please call (909) 594-5611, ext. 4845 to schedule an appointment.

OCCUPATIONAL – ACCOUNTING

Accounting – Computerized
SYS #962408

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

Certificate Requirements:
Completion of Accounting – Bookkeeping Certificate (234 hours)

<table>
<thead>
<tr>
<th>Course ID</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>VOC BA73</td>
<td>Using Microcomputers in Financial Accounting</td>
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<tr>
<td>VOC BA76</td>
<td>Using Microcomputers in Managerial Accounting</td>
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<tr>
<td>VOC CS15</td>
<td>Microcomputer Applications</td>
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<tr>
<td>VOC CP11</td>
<td>Internet Research for Business</td>
</tr>
<tr>
<td>VOC CP20</td>
<td>Microsoft Word</td>
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</tbody>
</table>

Accounting – Payroll
SYS #597867

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

Certificate Requirements:
Completion of Accounting – Bookkeeping Certificate (234 hours)

<table>
<thead>
<tr>
<th>Course ID</th>
<th>Course Title</th>
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<tr>
<td>VOC BA70</td>
<td>Payroll and Tax Accounting</td>
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<tr>
<td>VOC BA75</td>
<td>Using Microcomputers in Financial Accounting or</td>
</tr>
<tr>
<td>VOC BA76</td>
<td>Using Microcomputers in Managerial Accounting</td>
</tr>
</tbody>
</table>

OCCUPATIONAL – AGRICULTURAL SCIENCE

Floral Design
SYS #132282

This sequence is offered in the evening only on campus and at off-campus locations and can be completed in two years. Students completing all three courses will have skills and knowledge to seek jobs in floral design beyond entry-level positions, i.e., first-line supervision and/or management and Designers.

Certificate Requirements:
Course ID | Course Title                      |
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>VOC AGR25</td>
<td>Floral Design – 1</td>
</tr>
<tr>
<td>VOC AGR26</td>
<td>Floral Design – 2</td>
</tr>
<tr>
<td>VOC AGR27</td>
<td>Floral Design – 3</td>
</tr>
</tbody>
</table>

Horse Ranch Management
SYS #391289

This sequence of courses is designed to enable students to prepare for a career in horse ranch management. Courses provide students hands-on experience designed to give them a combination of practical skills and technical knowledge.

Certificate Requirements:
Course ID | Course Title                      |
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>VOC AGR03</td>
<td>Animal Nutrition</td>
</tr>
<tr>
<td>VOC AGR04</td>
<td>Animal Breeding</td>
</tr>
<tr>
<td>VOC AGL16</td>
<td>Horse Production or</td>
</tr>
<tr>
<td>VOC AGL18</td>
<td>Horse Ranch Management</td>
</tr>
<tr>
<td>VOC AGL19</td>
<td>Horse Foot Care</td>
</tr>
<tr>
<td>VOC AGL96</td>
<td>Animal Sanitation and Disease Control</td>
</tr>
<tr>
<td>VOC AGL97</td>
<td>Artificial Insemination of Livestock</td>
</tr>
</tbody>
</table>

Interior Landscaping
SYS #118137

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

Certificate Requirements:
Course ID | Course Title                      |
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>VOC AGR01</td>
<td>Horticultural Science</td>
</tr>
<tr>
<td>VOC AGR13</td>
<td>Landscape Design</td>
</tr>
<tr>
<td>VOC AGR15</td>
<td>Interior Landscaping</td>
</tr>
<tr>
<td>VOC AGR24</td>
<td>Integrated Pest Management</td>
</tr>
<tr>
<td>VOC AGR29</td>
<td>Ornamental Plants – Herbaceous</td>
</tr>
</tbody>
</table>

Landscape and Park Maintenance
SYS #621629

This certificate is designed to give students basic skills in park landscape maintenance. Courses are offered annually, and prepare the student with skills that are appropriate for the maintenance of grounds, property or parks.

Certificate Requirements:
Course ID | Course Title                      |
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>VOC AGR01</td>
<td>Horticultural Science</td>
</tr>
<tr>
<td>VOC AGR24</td>
<td>Integrated Pest Management</td>
</tr>
<tr>
<td>VOC AGR29</td>
<td>Ornamental Plants – Herbaceous</td>
</tr>
<tr>
<td>VOC AGR30</td>
<td>Ornamental Plants – Trees and Woody Shrubs</td>
</tr>
<tr>
<td>VOC AGR39</td>
<td>Turf Grass Production and Management</td>
</tr>
<tr>
<td>VOC AGR40</td>
<td>Sports Turf Management</td>
</tr>
<tr>
<td>VOC AGR51</td>
<td>Tractor and Landscape Equipment Operations</td>
</tr>
<tr>
<td>VOC AGR62</td>
<td>Landscape Irrigation – Design and Installation</td>
</tr>
<tr>
<td>VOC AGR63</td>
<td>Landscape Irrigation System Management</td>
</tr>
<tr>
<td>VOC AGR71</td>
<td>Landscape Construction Fundamentals</td>
</tr>
</tbody>
</table>

Landscape Design and Construction
SYS #196160

This certificate is designed to give students basic skills needed in employment with a landscape contractor. Employment potential is very good.

Certificate Requirements:
Course ID | Course Title                      |
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>VOC AGR01</td>
<td>Horticultural Science</td>
</tr>
<tr>
<td>VOC AGR13</td>
<td>Landscape Design</td>
</tr>
<tr>
<td>VOC AGR29</td>
<td>Ornamental Plants – Herbaceous</td>
</tr>
<tr>
<td>VOC AGR30</td>
<td>Ornamental Plants – Trees and Woody Shrubs</td>
</tr>
<tr>
<td>VOC AGR50</td>
<td>Soil Science and Management</td>
</tr>
<tr>
<td>VOC AGR51</td>
<td>Tractor and Landscape Equipment Operations</td>
</tr>
<tr>
<td>VOC AGR62</td>
<td>Landscape Irrigation – Design and Installation</td>
</tr>
<tr>
<td>VOC AGR71</td>
<td>Landscape Construction Fundamentals</td>
</tr>
<tr>
<td>VOC AGR72</td>
<td>Landscape Hardscape Applications</td>
</tr>
</tbody>
</table>
### Continuing Education

#### Landscape Equipment Technology  
SYS #375616
This certificate is designed to give students basic skills to seek employment in equipment repair, golf courses, rental yards, and small equipment repair shops.

**Certificate Requirements:**

<table>
<thead>
<tr>
<th>Course ID</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>VOC AGR01</td>
<td>Horticultural Science</td>
</tr>
<tr>
<td>VOC AGR51</td>
<td>Tractor and Landscape Operations</td>
</tr>
<tr>
<td>VOC AGR52</td>
<td>Hydraulics</td>
</tr>
<tr>
<td>VOC AGR53</td>
<td>Small Engine Repair</td>
</tr>
<tr>
<td>VOC AGR55</td>
<td>Diesel Engine Repair</td>
</tr>
<tr>
<td>VOC AGR56</td>
<td>Engine Diagnostics</td>
</tr>
<tr>
<td>VOC AGR57</td>
<td>Power Train Repair</td>
</tr>
<tr>
<td>VOC AGR71</td>
<td>Landscape Construction Fundamentals</td>
</tr>
<tr>
<td>VOC AGR72</td>
<td>Landscape Hardscape Applications</td>
</tr>
</tbody>
</table>

#### Landscape Irrigation  
SYS #327645
This certificate is designed to give students basic skills in irrigation design, repair installation, water management, and troubleshooting. Courses are offered Fall and Spring semesters. Jobs are plentiful with landscape contractors, schools, parks and cities.

**Certificate Requirements:**

<table>
<thead>
<tr>
<th>Course ID</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>VOC AGR01</td>
<td>Horticultural Science</td>
</tr>
<tr>
<td>VOC AGR13</td>
<td>Landscape Design</td>
</tr>
<tr>
<td>VOC AGR39</td>
<td>Turf Grass Production and Management</td>
</tr>
<tr>
<td>VOC AGR50</td>
<td>Soil Science and Management</td>
</tr>
<tr>
<td>VOC AGR51</td>
<td>Tractor and Landscape Equipment Operations</td>
</tr>
<tr>
<td>VOC AGR62</td>
<td>Landscape Irrigation — Design and Installation</td>
</tr>
<tr>
<td>VOC AGR63</td>
<td>Landscape Irrigation System Management</td>
</tr>
<tr>
<td>VOC AGR64</td>
<td>Landscape Irrigation — Drip and Low Volume</td>
</tr>
<tr>
<td>VOC AGR71</td>
<td>Landscape Construction Fundamentals</td>
</tr>
</tbody>
</table>

#### Livestock Management  
SYS #33598
This certificate is designed to give students basic skills in livestock management for employment opportunities on farms, ranches and agriculture sales and services. This sequence is offered on an annual basis.

**Certificate Requirements:**

<table>
<thead>
<tr>
<th>Course ID</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>VOC AGR01</td>
<td>Horticultural Science</td>
</tr>
<tr>
<td>VOC AGR02</td>
<td>Animal Science</td>
</tr>
<tr>
<td>VOC AGR03</td>
<td>Animal Nutrition</td>
</tr>
<tr>
<td>VOC AGR04</td>
<td>Animal Breeding</td>
</tr>
<tr>
<td>VOC AGR14</td>
<td>Sheep Production</td>
</tr>
<tr>
<td>VOC AGR16</td>
<td>Beef Production</td>
</tr>
<tr>
<td>VOC AGR17</td>
<td>Livestock Judging and Selection</td>
</tr>
<tr>
<td>VOC AGR19</td>
<td>Animal Sanitation and Disease Control</td>
</tr>
</tbody>
</table>

**Plus select 2 courses from the following:**

<table>
<thead>
<tr>
<th>Course ID</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>VOC AGR71</td>
<td>Landscape Construction Fundamentals</td>
</tr>
<tr>
<td>VOC BM20</td>
<td>Principles of Business</td>
</tr>
<tr>
<td>VOC BM66</td>
<td>Small Business Management</td>
</tr>
<tr>
<td>VOC B535</td>
<td>Professional Selling</td>
</tr>
<tr>
<td>VOC B536</td>
<td>Principles of Marketing</td>
</tr>
</tbody>
</table>

#### Nursery Management  
SYS #703868
This certificate is designed to give students basic skills in production and marketing of plants and dry goods in the wholesale and retail nursery industry. The sequence is offered on an annual basis.

**Certificate Requirements:**

<table>
<thead>
<tr>
<th>Course ID</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>VOC AGR01</td>
<td>Horticultural Science</td>
</tr>
<tr>
<td>VOC AGR02</td>
<td>Plant Propagation/ Greenhouse Management</td>
</tr>
<tr>
<td>VOC AGR24</td>
<td>Integrated Pest Management</td>
</tr>
<tr>
<td>VOC AGR29</td>
<td>Ornamental Plants — Herbaceous</td>
</tr>
<tr>
<td>VOC AGR30</td>
<td>Ornamental Plants — Trees and Woody Shrubs</td>
</tr>
<tr>
<td>VOC AGR32</td>
<td>Landscaping and Nursery Management</td>
</tr>
<tr>
<td>VOC AGR39</td>
<td>Turf Grass Production and Management</td>
</tr>
<tr>
<td>VOC AGR62</td>
<td>Landscape Irrigation — Design and Installation</td>
</tr>
</tbody>
</table>

**Plus select 2 courses from the following:**

<table>
<thead>
<tr>
<th>Course ID</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>VOC AGR01</td>
<td>Animal Science</td>
</tr>
<tr>
<td>VOC AGR02</td>
<td>Animal Nutrition</td>
</tr>
<tr>
<td>VOC AGR51</td>
<td>Animal Handling and Restraint</td>
</tr>
<tr>
<td>VOC AGR94</td>
<td>Animal Breeding</td>
</tr>
<tr>
<td>VOC AGL16</td>
<td>Animal Sanitation and Disease Control</td>
</tr>
</tbody>
</table>

### Park Management  
SYS #314920
This certificate is designed to enable students to prepare for a career in park management, and provides students with hands-on experience, designed to give them a combination of practical skills and technical knowledge.

**Certificate Requirements:**

<table>
<thead>
<tr>
<th>Course ID</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>VOC AGR01</td>
<td>Horticultural Science</td>
</tr>
<tr>
<td>VOC AGR04</td>
<td>Park Management</td>
</tr>
<tr>
<td>VOC AGR05</td>
<td>Park Facilities</td>
</tr>
<tr>
<td>VOC AGR24</td>
<td>Integrated Pest Management</td>
</tr>
<tr>
<td>VOC AGR30</td>
<td>Ornamental Plants — Trees and Woody Shrubs</td>
</tr>
<tr>
<td>VOC AGR39</td>
<td>Turf Grass Production and Management</td>
</tr>
<tr>
<td>VOC AGR51</td>
<td>Tractor and Landscape Equipment Operations</td>
</tr>
<tr>
<td>VOC AGR62</td>
<td>Landscape Irrigation — Design and Installation</td>
</tr>
<tr>
<td>VOC AGR63</td>
<td>Landscape Irrigation System Management</td>
</tr>
<tr>
<td>VOC AGR75</td>
<td>Urban Arboriculture</td>
</tr>
</tbody>
</table>

### Pet Science  
SYS #425556
This certificate is designed to enable students to enter the retail or wholesale pet industry. Most of the courses in this certificate are offered every Fall and Spring semester. Five of the courses are offered in the evening only and are rotated over four semesters.

**Certificate Requirements:**

<table>
<thead>
<tr>
<th>Course ID</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>VOC AGR01</td>
<td>Animal Science</td>
</tr>
<tr>
<td>VOC AGR02</td>
<td>Animal Nutrition</td>
</tr>
<tr>
<td>VOC AGR31</td>
<td>Animal Handling and Restraint</td>
</tr>
<tr>
<td>VOC AGR94</td>
<td>Animal Breeding</td>
</tr>
<tr>
<td>VOC AGL16</td>
<td>Animal Sanitation and Disease Control</td>
</tr>
</tbody>
</table>

**Plus select 2 courses from the following:**

<table>
<thead>
<tr>
<th>Course ID</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>VOC AGR70</td>
<td>Feline Management</td>
</tr>
<tr>
<td>VOC AGR71</td>
<td>Reptile Management</td>
</tr>
<tr>
<td>VOC AGR76</td>
<td>Aviculture — Cage and Aviary Birds</td>
</tr>
<tr>
<td>VOC BM66</td>
<td>Small Business Management</td>
</tr>
</tbody>
</table>

### Sports Turf Management  
SYS #332420
This certificate is designed to provide skills required for students interested in employment at golf courses, race tracks, athletic fields and stadiums, and other high-use turf areas. The sequence is offered on an annual basis.

**Certificate Requirements:**

<table>
<thead>
<tr>
<th>Course ID</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>VOC AGR01</td>
<td>Horticultural Science</td>
</tr>
<tr>
<td>VOC AGR24</td>
<td>Integrated Pest Management</td>
</tr>
<tr>
<td>VOC AGR30</td>
<td>Ornamental Plants — Trees and Woody Shrubs</td>
</tr>
<tr>
<td>VOC AGR39</td>
<td>Turf Grass Production and Management</td>
</tr>
<tr>
<td>VOC AGR40</td>
<td>Sports Turf Management</td>
</tr>
<tr>
<td>VOC AGR50</td>
<td>Soil Science and Management</td>
</tr>
<tr>
<td>VOC AGR51</td>
<td>Tractor and Landscape Equipment Operations</td>
</tr>
<tr>
<td>VOC AGR62</td>
<td>Landscape Irrigation — Design and Installation</td>
</tr>
<tr>
<td>VOC AGR63</td>
<td>Landscape Irrigation Systems Management</td>
</tr>
</tbody>
</table>

### Tree Care and Maintenance  
SYS #182769
This certificate is designed to give students basic skills in the repair and maintenance of trees.

**Certificate Requirements:**

<table>
<thead>
<tr>
<th>Course ID</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>VOC AGR01</td>
<td>Horticultural Science</td>
</tr>
<tr>
<td>VOC AGR24</td>
<td>Integrated Pest Management</td>
</tr>
<tr>
<td>VOC AGR30</td>
<td>Ornamental Plants — Trees and Woody Shrubs</td>
</tr>
<tr>
<td>VOC AGR32</td>
<td>Landscape and Nursery Management</td>
</tr>
<tr>
<td>VOC AGR50</td>
<td>Soil Science and Management</td>
</tr>
<tr>
<td>VOC AGR51</td>
<td>Tractor and Landscape Equipment Operations</td>
</tr>
<tr>
<td>VOC AGR53</td>
<td>Small Engine Repair</td>
</tr>
<tr>
<td>VOC AGR75</td>
<td>Urban Arboriculture</td>
</tr>
</tbody>
</table>
### OCCUPATIONAL – BUSINESS MANAGEMENT

#### Business Management – Level 1
SYS #18545

The Business Management – Level 1 Certificate is designed to introduce the student to the role of management in business. Students will be exposed to the terms, trends, organizational structure, and opportunities inherent in business management. The Department has sequenced courses to maximize student time, and there are four emphasis areas: Business Management, Human Resource Management, International Business or Small Business Management.

**Certificate Requirements:**
- **Course ID**
  - VOC BM20: Principles of Business
  - VOC BM61: Business Organization and Management
  - VOC CSB15: Microcomputer Applications

#### Business Management – Level 2
SYS #245391

The Business Management – Level 2 Certificate builds upon the Level 1 certificate to provide students with proven business tools that will enhance their management careers. Students will be exposed to projects and business simulations that will lead to measurable success. The Department has sequenced courses to maximize student time, and there are four emphasis areas: Business Management, Human Resource Management, International Business or Small Business Management.

**Certificate Requirements:**
- **Course ID**
  - VOC BM20: Principles of Business
  - VOC BM67: Principles of Accounting – Financial
  - VOC BM10: Principles of Continuous Quality Improvement
  - VOC BM51: Principles of International Business

#### Human Resource Management
SYS #152977

This introductory certificate exposes students to the business world and the role of human resources. Students become familiar with various approaches to business organization and the strategic nature of human resources. The Department has sequenced courses to maximize student time, and there are four emphasis areas: Business Management, Human Resource Management, International Business or Small Business Management.

**Certificate Requirements:**
- **Course ID**
  - VOC BM20: Principles of Business
  - VOC BM61: Business Organization and Management

#### Business Management – Level 3
SYS #965642

Upon completion of the Business Management – Level 3 Certificate, students will have built a foundation of management strategies and practices which will enable them to prosper in an ever-changing business environment. The Department has sequenced courses to maximize student time, and there are four emphasis areas: Business Management, Human Resource Management, International Business or Small Business Management.

**Certificate Requirements:**
- **Course ID**
  - VOC BM20: Principles of Business
  - VOC BM61: Business Organization and Management

#### International Business – Level 1
SYS #665499

This specialized business certificate is intended to prepare the student to work in the unique and dynamic environment of international business. The program also prepares the student as a business management generalist for companies conducting international trade. The Department has sequenced courses to maximize student time, and there are four emphasis areas: Business Management, Human Resource Management, International Business or Small Business Management.

**Certificate Requirements:**
- **Course ID**
  - VOC BM20: Principles of Business
  - VOC BM61: Business Organization and Management
  - VOC BS70: International Marketing Concepts

#### Retail Management – Level 1
SYS #601197

Introductory certificate exposes students to the business world and the role of retail distribution. The Department has sequenced courses to maximize student time, and there are five emphasis areas: Business Management, Human Resource Management, International Business, Retail Management and Small Business Management.

**Certificate Requirements:**
- **Course ID**
  - VOC BM25: Business Communications
  - VOC CSB15: Microcomputer Applications
  - VOC FSH62: Retail Store Management and Merchandising
  - OR
  - VOC BS50: Retail Store Management and Merchandising

#### Retail Management – Level 2
SYS #527217

Intermediate certificate builds upon the Level 1 Certificate to expose students to the various functions of managers in retail positions. The Department has sequenced courses to maximize student time, and there are five emphasis areas: Business Management, Human Resource Management, International Business, Retail Management and Small Business Management.

**Certificate Requirements:**
- **Course ID**
  - VOC BM25: Business Communications
  - VOC BM61: Business Organization and Management
  - VOC BM36: Principles of Marketing
Continuing Education

Retail Management – Level 3
SYS #127007
Students completing the advanced Level 3 Certificate will have knowledge and practical experience in business communication, leadership and financial controls. The Department has sequenced courses to maximize student time, and there are five emphasis areas: Business Management, Human Resource Management, International Business, Retail Management and Small Business Management.

Certificate Requirements:
Completion of:
Retail Management – Level 1
Retail Management – Level 2
PLUS the following:
Course ID Course Title
VOC BM60 Human Relations in Business
VOC BM61 Business Organization and Management
VOC BM62 Human Resource Management

Small Business Management – Level 1
SYS #563137
Small business has been described as the engine of change within the economy. The Small Business Management – Level 1 Certificate exposes the student to the fundamentals of managing and planning a small business. The Department has sequenced courses to maximize student time, and there are four emphasis areas: Business Management, Human Resource Management, International Business or Small Business Management. Courses are offered on an annual basis, and each level of Small Business Management emphasis can be completed in one semester.

Certificate Requirements:
Completion of:
Small Business Management – Level 1
PLUS the following:
Course ID Course Title
VOC BM60 Human Relations in Business
VOC BM61 Business Organization and Management
VOC BM62 Human Resource Management

Small Business Management – Level 2
SYS #2511547
The Small Business Management – Level 2 Certificate provides students with practical small business tools. It focuses on issues such as motivation, teamwork and leadership skills that lead to enhanced productivity through the development of people. The Department has sequenced courses to maximize student time, and there are four emphasis areas: Business Management, Human Resource Management, International Business or Small Business Management. Courses are offered on an annual basis, and each level of Small Business Management emphasis can be completed in one semester.

Certificate Requirements:
Completion of:
Small Business Management – Level 1
PLUS the following:
Course ID Course Title
VOC BM60 Human Relations in Business
VOC BM61 Business Organization and Management
VOC BM62 Human Resource Management

Computer Systems Technology
SYS #622137
The Computer Systems Technology curriculum encompasses advanced coursework in computer systems technology. This includes microprocessor programming codes and microprocessor interfacing circuits.

Certificate Requirements:
Course ID Course Title
VOC EL11 Technical Applications in Microcomputers
VOC EL12 Computer Simulation and Troubleshooting
VOC EL50A Electronic Circuits (DC)
VOC EL50B Electronic Circuits (AC)
VOC EL51 Electronic Devices
VOC EL56 Digital Electronics
VOC EL61 Electronics Assembly and Fabrication
VOC EL74 Microprocessor Systems

Electronic Assembly and Fabrication
SYS #352346
This certificate prepares students to enter the electronics field as assembly and fabrication technicians.

Certificate Requirements:
Course ID Course Title
VOC EL50A Electronic Circuits (DC)
VOC EL50B Electronic Circuits (AC)
VOC ECT50 Electrical Fundamentals for Cable Installations
VOC EL61 Electronic Assembly and Fabrication
VOC EL62 Advanced Surface Mount Assembly and Rework

Electronic Systems Technology – Level 1
SYS #258925
Develops skills in electrical fundamentals, fabrication techniques, wiring standards for cable and wire systems (copper, coax, fiber and structured cables) and basic computer skills in word processing, spreadsheets, database and the Internet.

Certificate Requirements:
Course ID Course Title
VOC EST50 Electrical Fundamentals for Cable Installations
VOC EST52 Fabrication Techniques for Cable Installations
VOC EST54 Cabling and Wiring Standards
VOC EL11 Technical Applications in Microcomputers
VOC CSB15 Microprocessor Applications

Electronic Systems Technology – Level 2
SYS #174983
This Level 2 certificate builds on the skills and concepts learned in level 1 and adds customer relations (soft skills) and the installation, calibration, setup, maintenance and troubleshooting of home theater systems, home automation and home security systems.

Certificate Requirements:
Completion of:
Electronic Systems Technology – Level 1
PLUS the following:
Course ID Course Title
VOC EST56 Home Theater and Home Automation Systems
VOC EST62 Electronic Troubleshooting – 1
VOC TCH60 Customer Relations for the Technician
VOC EST64 Electronic Troubleshooting – 2
VOC EST70 C-7 Low Voltage Systems License Preparation
VOC EL61 Electronic Assembly and Fabrication
VOC EL62 Advanced Surface Mount Assembly and Rework
### Electronic Technology
**SYS #670897**

This one-year certificate is designed for the person requiring background in the basic core courses of electronic technology without an area of specialization. The core courses provide the necessary skills for entry-level employment as an electronic technician, by written information regarding term offering and correct course selection.

**Certificate Requirements:**

<table>
<thead>
<tr>
<th>Course ID</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>VOC EL11</td>
<td>Technical Applications in Microcomputers</td>
</tr>
<tr>
<td>VOC EL50A</td>
<td>Electronic Circuits (DC)</td>
</tr>
<tr>
<td>VOC EL50B</td>
<td>Electronic Circuits (AC)</td>
</tr>
<tr>
<td>VOC EL51</td>
<td>Electronic Devices</td>
</tr>
<tr>
<td>VOC EL56</td>
<td>Digital Electronics</td>
</tr>
<tr>
<td>VOC EL61</td>
<td>Electronics Assembly and Fabrication</td>
</tr>
<tr>
<td>VOC TCH60</td>
<td>Customer Relations for the Technician</td>
</tr>
</tbody>
</table>

### Electronics Communications
**SYS #742582**

This certificate encompasses advanced coursework in electronics communications including both land-based and wireless forms of communication.

**Certificate Requirements:**

<table>
<thead>
<tr>
<th>Course ID</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>VOC EL11</td>
<td>Technical Applications in Microcomputers</td>
</tr>
<tr>
<td>VOC EL12</td>
<td>Computer Simulation and Troubleshooting</td>
</tr>
<tr>
<td>VOC EL50A</td>
<td>Electronic Circuits (DC)</td>
</tr>
<tr>
<td>VOC EL50B</td>
<td>Electronic Circuits (AC)</td>
</tr>
<tr>
<td>VOC EL51</td>
<td>Electronic Devices</td>
</tr>
<tr>
<td>VOC EL53</td>
<td>Communications Circuits</td>
</tr>
<tr>
<td>VOC EL55</td>
<td>Microwave Communications</td>
</tr>
<tr>
<td>VOC EL56</td>
<td>Digital Electronics</td>
</tr>
<tr>
<td>VOC EL61</td>
<td>Electronics Assembly and Fabrication</td>
</tr>
<tr>
<td>VOC TCH60</td>
<td>Customer Relations for the Technician</td>
</tr>
</tbody>
</table>

### Electronics and Computer – Engineering Technology
**SYS #103989**

Students completing this certificate will have training in most areas of electronics including microprocessors and interfacing, electronic communications and industrial electronic controls. Jobs include, but are not limited to:

- Electrical and Electronic Installers and Repair
- Electrical and Electronic Engineering Technician
- Electrical and Electronic Equipment Assemblers

**Certificate Requirements:**

<table>
<thead>
<tr>
<th>Course ID</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>VOC EL19</td>
<td>Technical Applications in Microprocessors</td>
</tr>
<tr>
<td>VOC EL12</td>
<td>Computer Simulation and Troubleshooting</td>
</tr>
<tr>
<td>VOC EL50A</td>
<td>Electronic Circuits (DC)</td>
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<tr>
<td>VOC EL50B</td>
<td>Electronic Circuits (AC)</td>
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<tr>
<td>VOC EL51</td>
<td>Electronic Devices</td>
</tr>
<tr>
<td>VOC EL53</td>
<td>Communications Circuits</td>
</tr>
<tr>
<td>VOC EL54A</td>
<td>Industrial Electronics</td>
</tr>
<tr>
<td>VOC EL54B</td>
<td>Industrial Electronic Systems</td>
</tr>
<tr>
<td>VOC EL55</td>
<td>Microwave Communications</td>
</tr>
<tr>
<td>VOC EL56</td>
<td>Digital Electronics</td>
</tr>
<tr>
<td>VOC EL61</td>
<td>Electronics Assembly and Fabrication</td>
</tr>
<tr>
<td>VOC EL74</td>
<td>Microprocessor Systems</td>
</tr>
<tr>
<td>VOC TCH60</td>
<td>Customer Relations for the Technician</td>
</tr>
</tbody>
</table>

### Industrial Electronics
**SYS #612116**

This certificate includes electronic devices for industrial controls and motor controls; including programmable logic controllers using the Allen Bradley series of PLC’s running Windows ladder logic software.

**Certificate Requirements:**

<table>
<thead>
<tr>
<th>Course ID</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>VOC EL11</td>
<td>Technical Applications in Microcomputers</td>
<td></td>
</tr>
<tr>
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<td>VOC TCH60</td>
<td>Customer Relations for the Technician</td>
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</tr>
</tbody>
</table>

### Recommended Electives:

- VOC EBT11 Technical Engineering Drawing I
- VOC EL2 Advanced Surface mount Assembly and Rework
- VOC EL76 Radio Telephone Communications
- VOC EL62 Advanced Electronic Circuit Design
- VOC EL63 Computer Aided Design: Electronic Circuits

### Health Care Interpreting
**SYS #425877**

Health care providers receiving Federal funds are required to provide interpreters for patients who speak a language other than English at home, if speakers of that language represent a significant portion of the population in the area. Therefore, the need for trained interpreters is growing rapidly. Many health care providers are choosing to upgrade the skills of their current employees through certificate programs such as ours.

The Health Care Interpreting Certificate is an 11 month program, designed to train bilingual and bicultural students to develop the awareness, knowledge and skills for effective language interpretation in health care settings. Through academic preparation, practical skills training, and service in Continuing-based health care settings and educational organizations, HCI candidates will learn:

- Roles and responsibilities of an interpreter in health care settings.
- Basic knowledge of common medical conditions, treatments, and procedures.
- Language and cultural nuances for specific healthcare consumers and providers.
- Application of interpreting skills in English and Spanish or Mandarin.

The program begins each Fall semester and includes coursework, independent lab study, and a 6-week unpaid internship within a local healthcare facility. Certification is awarded after completion of the internship. Classes are arranged for the working student, and are scheduled evenings and Saturdays.

A cohort of students is admitted each fall semester and completes the certificate at the end of the following Summer Intersession.

**Certificate Requirements:**

<table>
<thead>
<tr>
<th>Course ID</th>
<th>Course Title</th>
</tr>
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<tbody>
<tr>
<td>VOC HTH01</td>
<td>Certified Nursing Assistant</td>
</tr>
<tr>
<td>VOC HTH04</td>
<td>Acute Care Nursing Assistant</td>
</tr>
<tr>
<td>VOC HTH05</td>
<td>Health Careers Resource Center</td>
</tr>
</tbody>
</table>

**Certified Nurse Assistant (CNA)**

**Course Completion Only VOC HTH01**

VOC HTH 01 is offered for “course completion only” during the Winter and Summer Intersessions. This course provides for employment in long term care only.

For further information, please contact the Health Careers Resource Center, (909) 594-5611, ext. 4788.

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For further information, please contact the Health Careers Resource Center, (909) 594-5611, ext. 4788.
Continuing Education

**Basic Requirements:**
Applicants should have advanced academic proficiency in English, both spoken and written, and should be equally proficient in the language of service (Spanish or Mandarin).

To enroll in this program, you must attend an information meeting and complete the language assessment process. Registration will be offered on a first-come, first-served basis for eligible candidates attending the meeting.

For further information and mailed announcements of meeting dates, call VESL Registration at (909) 594-5611, ext. 5236.

## OCCUPATIONAL – MANUFACTURING TECHNOLOGY

### Manufacturing Technology
**SYS #219007**
The primary purpose of this certificate is to emphasize the manipulative skills required to enter the field of machine metal worker, machine operator, production machinist, mechanical technician or machinist. There are many occupational titles and opportunities in this field.

**Certificate Requirements:**

<table>
<thead>
<tr>
<th>Course ID</th>
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</tr>
</thead>
<tbody>
<tr>
<td>VOC MF11</td>
<td>Manufacturing Processes I</td>
</tr>
<tr>
<td>VOC MF12</td>
<td>Manufacturing Processes 2</td>
</tr>
<tr>
<td>VOC MF15</td>
<td>AutoCAD 2D</td>
</tr>
<tr>
<td>VOC MF17</td>
<td>3-D CAD – Mechanical Modeling</td>
</tr>
<tr>
<td>VOC MF19</td>
<td>Parametric Solid Modeling for Manufacturing</td>
</tr>
<tr>
<td>VOC MF38</td>
<td>MasterCAM</td>
</tr>
<tr>
<td>VOC MF38B</td>
<td>Advanced MasterCAM</td>
</tr>
<tr>
<td>VOC MF39</td>
<td>SurfCAM</td>
</tr>
<tr>
<td>VOC MF39B</td>
<td>SurfCAM II</td>
</tr>
<tr>
<td>VOC MF58</td>
<td>Blueprint Reading for Manufacturing</td>
</tr>
<tr>
<td>VOC MF70</td>
<td>Technical Mathematics – Manufacturing Applications</td>
</tr>
<tr>
<td>VOC MF85</td>
<td>Manual CNC (Computerized Numerical Control) Operations</td>
</tr>
<tr>
<td>PLUS – 2 courses from the following:</td>
<td></td>
</tr>
<tr>
<td>VOC MF25</td>
<td>Advanced Parametric Solid Modeling for Manufacturing</td>
</tr>
<tr>
<td>VOC MF27</td>
<td>AutoDesk Inventor</td>
</tr>
<tr>
<td>VOC WL40</td>
<td>Introduction to Welding</td>
</tr>
</tbody>
</table>

### Parametric Solid Modeling
**SYS #649508**
With the strong relationship between AutoCAD and manufacturing, this mini certificate guides the student through AutoDesk’s 2-D and 3-D and other software packages used in the manufacturing industry.

**Certificate Requirements:**

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<tbody>
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<td>Manufacturing Processes I</td>
</tr>
<tr>
<td>VOC MF15</td>
<td>AutoCAD 2D</td>
</tr>
<tr>
<td>VOC MF17</td>
<td>3-D CAD – Mechanical Modeling</td>
</tr>
<tr>
<td>VOC MF19</td>
<td>Parametric Solid Modeling for Manufacturing</td>
</tr>
<tr>
<td>VOC MF25</td>
<td>Advanced Mechanical Desktop</td>
</tr>
<tr>
<td>VOC MF27</td>
<td>AutoDesk Inventor</td>
</tr>
</tbody>
</table>

### MasterCAM
**SYS #800999**
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:**

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<tbody>
<tr>
<td>VOC MF11</td>
<td>Manufacturing Processes I</td>
</tr>
<tr>
<td>VOC MF38</td>
<td>MasterCAM I</td>
</tr>
<tr>
<td>VOC MF38B</td>
<td>Advanced MasterCAM</td>
</tr>
</tbody>
</table>

### SurfCAM
**SYS #252843**
This certificate is a direct employment pathway for manufacturing students who wish to write, edit, download and run Computerized Numerical Control (CNC) machines, and provides a strong background in the basics of both manual and CNC machines. The sequence is a highly specialized occupation.

**Certificate Requirements:**

<table>
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<tbody>
<tr>
<td>VOC MF11</td>
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</tr>
<tr>
<td>VOC MF15</td>
<td>SurfCAM I</td>
</tr>
<tr>
<td>VOC MF39</td>
<td>SurfCAM II</td>
</tr>
<tr>
<td>VOC MF85</td>
<td>Manual CNC (Computerized Numerical Control) Operations</td>
</tr>
</tbody>
</table>

### OCCUPATIONAL – OFFICE TECHNOLOGY

### Administrative Assistant – Level 1
**SYS #736281**
Prepares students for entry-level clerical positions where keyboarding is the primary function.

**Certificate Requirements:**

<table>
<thead>
<tr>
<th>Course ID</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>VOC B005</td>
<td>Business English</td>
</tr>
<tr>
<td>VOC CP01</td>
<td>Computer Keyboarding OR</td>
</tr>
<tr>
<td>VOC CP01A</td>
<td>Computer Keyboarding AND</td>
</tr>
<tr>
<td>VOC CP01B</td>
<td>Computer Keyboarding</td>
</tr>
<tr>
<td>VOC CP12</td>
<td>Office Computer Applications OR</td>
</tr>
<tr>
<td>VOC CSB15</td>
<td>Microcomputer Applications</td>
</tr>
<tr>
<td>VOC CP28</td>
<td>Office Management Skills</td>
</tr>
</tbody>
</table>

### Administrative Assistant – Level 2
**SYS #316457**
This certificate prepares students for clerical positions where office organization and transcription skills are needed.

**Certificate Requirements:**

**Completion of:**
Completion of Administrative Assistant – Level 1

**PLUS the following:**

<table>
<thead>
<tr>
<th>Course ID</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>VOC B025</td>
<td>Business Communications</td>
</tr>
<tr>
<td>VOC CP02</td>
<td>Intermediate Computer Keyboarding</td>
</tr>
<tr>
<td>VOC CP20</td>
<td>Word for the Business Professional or Transcription Techniques</td>
</tr>
<tr>
<td>VOC CP68</td>
<td>Microcomputer Applications</td>
</tr>
</tbody>
</table>

### Data Entry
**SYS #234664**
This certificate is intended to prepare students for employment as data entry operators, customer service representatives, receptionists, or entry-level office support staff positions. Training in a variety of computer skills is emphasized.

**Certificate Requirements:**

<table>
<thead>
<tr>
<th>Course ID</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>VOC CP02</td>
<td>Intermediate Computer Keyboarding</td>
</tr>
<tr>
<td>VOC CP12</td>
<td>Office Computer Applications OR</td>
</tr>
<tr>
<td>VOC CSB15</td>
<td>Microcomputer Applications</td>
</tr>
<tr>
<td>VOC CP18</td>
<td>Data Entry</td>
</tr>
</tbody>
</table>

### Medical Office Specialist
**SYS #137648**
The courses in this certificate are intended to prepare students for employment as entry-level medical office assistants, medical receptionists, administrative assistants-medical, medical office managers or other office support staff in the medical field.

**Certificate Requirements:**

<table>
<thead>
<tr>
<th>Course ID</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>VOC BA72</td>
<td>Bookkeeping – Accounting</td>
</tr>
<tr>
<td>VOC B005</td>
<td>Business English</td>
</tr>
<tr>
<td>VOC B025</td>
<td>Business Communications</td>
</tr>
<tr>
<td>VOC CP01</td>
<td>Computer Keyboarding</td>
</tr>
<tr>
<td>VOC CP02</td>
<td>Intermediate Computer Keyboarding</td>
</tr>
<tr>
<td>VOC CP12</td>
<td>Office Computer Applications OR</td>
</tr>
<tr>
<td>VOC CSB15</td>
<td>Microcomputer Applications</td>
</tr>
<tr>
<td>VOC CP18</td>
<td>Data Entry</td>
</tr>
<tr>
<td>VOC CP20</td>
<td>Microsoft Word</td>
</tr>
<tr>
<td>VOC CP28</td>
<td>Office Management Skills</td>
</tr>
<tr>
<td>VOC CP68</td>
<td>Transcription Techniques</td>
</tr>
<tr>
<td>VOC HTH12</td>
<td>Medical Terminology</td>
</tr>
</tbody>
</table>

### Office Computer Applications
**SYS #534470**
This certificate in Office Computer Applications is customized to meet the needs of the entry-level adult student or professional, who is seeking to acquire an array of office computer skills required in a computerized office environment.

**Certificate Requirements:**

<table>
<thead>
<tr>
<th>Course ID</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>VOC CPBC1</td>
<td>Basic Computing – Level 1</td>
</tr>
<tr>
<td>VOC CPBC2</td>
<td>Basic Computing – Level 2</td>
</tr>
<tr>
<td>VOC CPBC3</td>
<td>Basic Computing – Level 3</td>
</tr>
<tr>
<td>VOC CPNET</td>
<td>Internet Research – An Introduction</td>
</tr>
<tr>
<td>VOC CPLC</td>
<td>Creative Computing</td>
</tr>
</tbody>
</table>
OCCUPATIONAL – PHOTOGRAPHICS

Computer Graphics Design / Photography
SYS #320382
This certificate will enable the student to develop specific computer skills needed for employment. The Computer Graphics Certificate is an option under the Photography program. Employment will vary among several industries such as computer gaming, movie production, music video production, commercials and animation.

Certificate Requirements:
Course ID Course Title
VOC GRP1 Computer Graphics Lab
VOC GRP10 Photo Editing with Photoshop
VOC GRP2 Advanced Photoshop
VOC GRP14 Digital Color Management
VOC GRP20 Applying Photos and Images in Multimedia
VOC GRP28 Digital Portfolio
VOC PHO10 Basic Digital and Film Photography
VOC PHO17 Photocommunications

Recommended Electives:
The Photographics faculty recommends that you complement your studies with selected elective courses listed below. You should meet with a professor of Computer Graphics Design/Photography to help you determine which electives would best suit your career plans.

VOC GRP12 Advanced Photoshop
VOC GRP16 Digital Image Design
VOC GRP20 Applying Photos and Images in Multimedia
VOC GRP28 Digital Portfolio
VOC PHO10 Basic Digital and Film Photography
VOC PHO17 Photocommunications

Photography
SYS #320398
This certificate is designed to prepare students to develop specific skills needed for employment in photography, art, cinema/animation, communications, industrial arts, graphics and journalism.

Certificate Requirements:
Course ID Course Title
VOC GRP10 Photo Editing with Photoshop
VOC PHO10 Basic Digital and Film Photography
VOC PHO11 Advanced Professional Photography
VOC PHO12 Photographic Alternatives OR
VOC PHO21 Exploring Color Photography
VOC PHO16 Fashion Photography OR
VOC PHO18 Portraiture and Wedding Photography
VOC PHO17 Photocommunication
VOC PHO20 Color Photography
VOC PHO28 Photography Portfolio Development
VOC PHO30 Commercial and Illustrative Photography

Recommended Electives:
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VOC GRP12 Advanced Photoshop
VOC GRP16 Digital Image Design
VOC GRP20 Applying Photos and Images in Multimedia
VOC GRP28 Digital Portfolio
VOC PHO10 Basic Digital and Film Photography
VOC PHO17 Photocommunications

OCCUPATIONAL – SPECIAL NEEDS POPULATION

Job Readiness Skills
SYS #798265
(San Gabriel Valley Training Center)
This Certificate provides hands-on job training in computer and assembly skills for the entry-level worker. Participants will improve their opportunities for employment and career advancement.

Certificate Requirements:
Course ID Course Title
VOC WEL10 Photo Editing with Photoshop
VOC WEL11 Advanced Professional Photography
VOC WEL21 Exploring Color Photography
VOC WEL16 Fashion Photography OR
VOC WEL18 Portraiture and Wedding Photography
VOC WEL17 Photocommunication
VOC WEL20 Color Photography
VOC WEL28 Photography Portfolio Development
VOC WEL30 Commercial and Illustrative Photography

Recommended Electives:
The Welding faculty recommends that you complement your studies with selected elective courses chosen from the list below. Students should meet with a professor of Welding to help you determine which of those electives would best suit your career plans.

VOC GRP1 Computer Graphics Lab
VOC GRP10 Photo Editing with Photoshop
VOC PHO10 Basic Digital and Film Photography
VOC PHO11 Advanced Professional Photography
VOC PHO12 Photographic Alternatives OR
VOC PHO21 Exploring Color Photography
VOC PHO16 Fashion Photography OR
VOC PHO18 Portraiture and Wedding Photography
VOC PHO17 Photocommunication
VOC PHO20 Color Photography
VOC PHO28 Photography Portfolio Development
VOC PHO30 Commercial and Illustrative Photography

Recommended Electives:
The Welding faculty recommends that you complement your studies with selected elective courses chosen from the list below. Students should meet with a professor of Welding to help you determine which of those electives would best suit your career plans.

Welding
SYS #340189
This Certificate provides hands-on job training in computer and assembly skills for the entry-level worker. Participants will improve their opportunities for employment and career advancement.

Certificate Requirements:
Course ID Course Title
VOC WL50 Oxyacetylene Welding
VOC WL60 Print Reading and Computations for Welders
VOC WL70A Beginning ARC Welding
VOC WL70B Intermediate ARC Welding
VOC WL70C Certification for Welders

Recommended Electives:
The Welding faculty recommends that students complement their studies with selected elective courses chosen from the list below. Students should meet with a professor of Welding to help you determine which of those electives would best suit your career plans.

VOC WL51 Basic Electric Arc Welding
VOC WL53A Welding Metallurgy
VOC WL60 Print Reading and Computations for Welders
VOC WL70A Beginning ARC Welding
VOC WL70B Intermediate ARC Welding
VOC WL70C Certification for Welders
VOC WL80 Fabrication and Construction Welding
VOC WL81 Pipe and Tube Welding

OCCUPATIONAL – WELDING TECHNOLOGIES

Welding
SYS #919193
This Certificate is designed to prepare students for entry-level employment as a licensed welder in the broad field of welding, including manufacturing, construction, fabrication and repair. Through theoretical and hands-on skills coursework, students prepare for industry licensing with an understanding of current guidelines and standards. Particular emphasis is placed on those competencies required for certification in structural steel welding. Course sequences can be modified to reflect industry experience or other individual needs.

Certificate Requirements:
Course ID Course Title
VOC WL40 Introduction to Welding
VOC WL50 Oxyacetylene Welding
VOC WL51 Basic Electric Arc Welding
VOC WL53A Welding Metallurgy
VOC WL60 Print Reading and Computations for Welders
VOC WL70A Beginning ARC Welding
VOC WL70B Intermediate ARC Welding
VOC WL70C Certification for Welders
VOC WL80 Fabrication and Construction Welding
VOC WL81 Pipe and Tube Welding

Recommended Electives:
The Welding faculty recommends that students complement their studies with selected elective courses chosen from the list below. Students should meet with a professor of Welding to help you determine which of those electives would best suit your career plans.

VOC WL10 Photo Editing with Photoshop
VOC WL11 Advanced Professional Photography
VOC WL21 Exploring Color Photography
VOC WL16 Fashion Photography OR
VOC WL18 Portraiture and Wedding Photography
VOC WL17 Photocommunication
VOC WL20 Color Photography
VOC WL28 Photography Portfolio Development
VOC WL30 Commercial and Illustrative Photography

Recommended Electives:
The Welding faculty recommends that you complement your studies with selected elective courses chosen from the list below. Students should meet with a professor of Welding to help you determine which of those electives would best suit your career plans.

VOC WL50 Oxyacetylene Welding
VOC WL60 Print Reading and Computations for Welders
VOC WL70A Beginning ARC Welding
VOC WL70B Intermediate ARC Welding
VOC WL70C Certification for Welders
VOC WL80 Fabrication and Construction Welding
VOC WL81 Pipe and Tube Welding

License Welder
SYS #919193
This Certificate is designed to prepare students for entry-level employment as a licensed welder in the broad field of welding, including manufacturing, construction, fabrication and repair. Through theoretical and hands-on skills coursework, students prepare for industry licensing with an understanding of current guidelines and standards. Particular emphasis is placed on those competencies required for certification in structural steel welding. Course sequences can be modified to reflect industry experience or other individual needs.

Certificate Requirements:
Course ID Course Title
VOC WL40 Introduction to Welding
VOC WL50 Oxyacetylene Welding
VOC WL51 Basic Electric Arc Welding
VOC WL53A Welding Metallurgy
VOC WL60 Print Reading and Computations for Welders
VOC WL70A Beginning ARC Welding
VOC WL70B Intermediate ARC Welding
VOC WL70C Certification for Welders
VOC WL80 Fabrication and Construction Welding
VOC WL81 Pipe and Tube Welding

Recommended Electives:
The Welding faculty recommends that students complement their studies with selected elective courses chosen from the list below. Students should meet with a professor of Welding to help you determine which of those electives would best suit your career plans.

VOC WL10 Photo Editing with Photoshop
VOC WL11 Advanced Professional Photography
VOC WL21 Exploring Color Photography
VOC WL16 Fashion Photography OR
VOC WL18 Portraiture and Wedding Photography
VOC WL17 Photocommunication
VOC WL20 Color Photography
VOC WL28 Photography Portfolio Development
VOC WL30 Commercial and Illustrative Photography

Recommended Electives:
The Welding faculty recommends that you complement your studies with selected elective courses chosen from the list below. Students should meet with a professor of Welding to help you determine which of those electives would best suit your career plans.

VOC WL50 Oxyacetylene Welding
VOC WL60 Print Reading and Computations for Welders
VOC WL70A Beginning ARC Welding
VOC WL70B Intermediate ARC Welding
VOC WL70C Certification for Welders
VOC WL80 Fabrication and Construction Welding
VOC WL81 Pipe and Tube Welding

Recommended Electives:
The Welding faculty recommends that students complement their studies with selected elective courses chosen from the list below. Students should meet with a professor of Welding to help you determine which of those electives would best suit your career plans.

VOC WL10 Photo Editing with Photoshop
VOC WL11 Advanced Professional Photography
VOC WL21 Exploring Color Photography
VOC WL16 Fashion Photography OR
VOC WL18 Portraiture and Wedding Photography
VOC WL17 Photocommunication
VOC WL20 Color Photography
VOC WL28 Photography Portfolio Development
VOC WL30 Commercial and Illustrative Photography

Recommended Electives:
The Welding faculty recommends that you complement your studies with selected elective courses chosen from the list below. Students should meet with a professor of Welding to help you determine which of those electives would best suit your career plans.

VOC WL50 Oxyacetylene Welding
VOC WL60 Print Reading and Computations for Welders
VOC WL70A Beginning ARC Welding
VOC WL70B Intermediate ARC Welding
VOC WL70C Certification for Welders
VOC WL80 Fabrication and Construction Welding
VOC WL81 Pipe and Tube Welding
**Welder with Concentration in Automotive Welding, Cutting & Modification**

SYS #483743

Preparation as a Licensed Welder with additional skills and theoretical development in automotive welding, cutting and modification.

**Certificate Requirements:**
- Completion of:
  - Licensed Welder Certificate
- PLUS the following:

<table>
<thead>
<tr>
<th>Course ID</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
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<tbody>
<tr>
<td>VOC WL91</td>
<td>Automotive Welding, Cutting and Modification</td>
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</tbody>
</table>

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**Welder with Concentration in Gas Tungsten ARC Welding**

SYS #108929

Preparation as a Licensed Welder with additional skills and theoretical development in gas tungsten ARC Welding.

**Certificate Requirements:**
- Completion of:
  - Licensed Welder Certificate
- PLUS the following:

<table>
<thead>
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<th>Course ID</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>VOC WLD90A</td>
<td>Gas Tungsten ARC Welding</td>
<td>54</td>
</tr>
</tbody>
</table>

---

**Welder with Concentration in Semiautomatic ARC Welding**

SYS #460640

Preparation as a Licensed Welder with additional skills and theoretical development in Semiautomatic ARC Welding.

**Certificate Requirements:**
- Completion of:
  - Licensed Welder Certificate
- PLUS the following:

<table>
<thead>
<tr>
<th>Course ID</th>
<th>Course Title</th>
<th>Hours</th>
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<tr>
<td>VOC WL90B</td>
<td>Semiautomatic ARC Welding Process</td>
<td></td>
</tr>
</tbody>
</table>
## Continuing Education

### NONCREDIT COURSE LISTINGS

<table>
<thead>
<tr>
<th>Subject</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic Skills</td>
<td>229</td>
</tr>
<tr>
<td>Adult Basic Education</td>
<td>229</td>
</tr>
<tr>
<td>Adult Basic Education — Leadership Development</td>
<td>229</td>
</tr>
<tr>
<td>Basic Skills Development — Reading &amp; Writing</td>
<td>229</td>
</tr>
<tr>
<td>Basic Skills Foundation</td>
<td>229</td>
</tr>
<tr>
<td>Career Development</td>
<td>229</td>
</tr>
<tr>
<td>Career Information and Guidance</td>
<td>229</td>
</tr>
<tr>
<td>Career/Life Planning</td>
<td>229</td>
</tr>
<tr>
<td>Developmental Mathematics — Concepts and Application</td>
<td>229</td>
</tr>
<tr>
<td>Guidance and Orientation to Special Programs</td>
<td>229</td>
</tr>
<tr>
<td>Re-Entry Work Skills Needed for Today’s Workforce</td>
<td>229</td>
</tr>
<tr>
<td>Basic Skills — Review</td>
<td>229</td>
</tr>
<tr>
<td>Improving Reading Comprehension</td>
<td>229</td>
</tr>
<tr>
<td>Improving Writing</td>
<td>229</td>
</tr>
<tr>
<td>Language Skills Laboratory</td>
<td>229</td>
</tr>
<tr>
<td>Learning Support Laboratory</td>
<td>229</td>
</tr>
<tr>
<td>Math Skills Review</td>
<td>229</td>
</tr>
<tr>
<td>Personal Computer Applications</td>
<td>229</td>
</tr>
<tr>
<td>Reading Acceleration</td>
<td>229</td>
</tr>
<tr>
<td>Short-Term Review</td>
<td>229</td>
</tr>
<tr>
<td>Basic Skills — Secondary Education (High School)</td>
<td>229</td>
</tr>
<tr>
<td>Academic Decathlon</td>
<td>229</td>
</tr>
<tr>
<td>Algebra 1</td>
<td>229</td>
</tr>
<tr>
<td>Algebra 2</td>
<td>229</td>
</tr>
<tr>
<td>Art and Creative Expression</td>
<td>229</td>
</tr>
<tr>
<td>Art 2</td>
<td>229</td>
</tr>
<tr>
<td>Biology</td>
<td>229</td>
</tr>
<tr>
<td>CAHSEE Prep — English Language Arts</td>
<td>230</td>
</tr>
<tr>
<td>CAHSEE Prep — Mathematics</td>
<td>230</td>
</tr>
<tr>
<td>Chemistry</td>
<td>229</td>
</tr>
<tr>
<td>Chinese 1</td>
<td>229</td>
</tr>
<tr>
<td>Civics/American Government</td>
<td>230</td>
</tr>
<tr>
<td>Computer Technology</td>
<td>230</td>
</tr>
<tr>
<td>Diploma and Referral Program Learning</td>
<td>230</td>
</tr>
<tr>
<td>Earth Science</td>
<td>230</td>
</tr>
<tr>
<td>Economics</td>
<td>230</td>
</tr>
<tr>
<td>English 1</td>
<td>230</td>
</tr>
<tr>
<td>English 2</td>
<td>230</td>
</tr>
<tr>
<td>English 3</td>
<td>230</td>
</tr>
<tr>
<td>English 4</td>
<td>230</td>
</tr>
<tr>
<td>Expository Writing</td>
<td>231</td>
</tr>
<tr>
<td>Expository Writing and Critical Reading</td>
<td>229</td>
</tr>
<tr>
<td>Geography</td>
<td>230</td>
</tr>
<tr>
<td>Geometry</td>
<td>230</td>
</tr>
<tr>
<td>Graphics/Printing, Advanced</td>
<td>230</td>
</tr>
<tr>
<td>Health Education</td>
<td>230</td>
</tr>
<tr>
<td>Journalism</td>
<td>230</td>
</tr>
<tr>
<td>Life Science</td>
<td>230</td>
</tr>
<tr>
<td>Mathematics, General</td>
<td>230</td>
</tr>
<tr>
<td>Music Appreciation</td>
<td>230</td>
</tr>
<tr>
<td>Natural Science 1</td>
<td>230</td>
</tr>
<tr>
<td>Natural Science 2</td>
<td>230</td>
</tr>
<tr>
<td>Philosophy</td>
<td>230</td>
</tr>
<tr>
<td>Physical Science</td>
<td>231</td>
</tr>
<tr>
<td>Planning and Guidance</td>
<td>231</td>
</tr>
<tr>
<td>Pre-Algebra</td>
<td>231</td>
</tr>
<tr>
<td>Psychology</td>
<td>231</td>
</tr>
<tr>
<td>Single Survival “On Your Own” — Preparation for Adult Living</td>
<td>211</td>
</tr>
<tr>
<td>Stagecrafts</td>
<td>231</td>
</tr>
<tr>
<td>Study Skills</td>
<td>231</td>
</tr>
<tr>
<td>Sociology</td>
<td>231</td>
</tr>
<tr>
<td>Speech and Communication</td>
<td>231</td>
</tr>
<tr>
<td>Spanish 1 — Conversation and Writing</td>
<td>231</td>
</tr>
<tr>
<td>Spanish 2</td>
<td>231</td>
</tr>
<tr>
<td>Topics in Algebra 2</td>
<td>231</td>
</tr>
<tr>
<td>Topics in Geometry</td>
<td>231</td>
</tr>
<tr>
<td>Typing/Keyboarding</td>
<td>230</td>
</tr>
<tr>
<td>United States History</td>
<td>231</td>
</tr>
<tr>
<td>Video and Media Production</td>
<td>231</td>
</tr>
<tr>
<td>World History</td>
<td>231</td>
</tr>
<tr>
<td>Basic Skills — Tutoring</td>
<td>231</td>
</tr>
<tr>
<td>All Subjects Tutoring</td>
<td>231</td>
</tr>
<tr>
<td>Language Arts Tutoring</td>
<td>231</td>
</tr>
<tr>
<td>Mathematics</td>
<td>231</td>
</tr>
<tr>
<td>Supplemental Instructor, Tutoring as a</td>
<td>231</td>
</tr>
<tr>
<td>Tutoring, Introduction to</td>
<td>231</td>
</tr>
<tr>
<td>Tutoring Techniques</td>
<td>231</td>
</tr>
<tr>
<td>Citizenship</td>
<td>231</td>
</tr>
<tr>
<td>Citizenship for Naturalization</td>
<td>231</td>
</tr>
<tr>
<td>Disabled Students</td>
<td>232</td>
</tr>
<tr>
<td>Adaptive Academic Preparation</td>
<td>232</td>
</tr>
<tr>
<td>Clinical Speech Instruction</td>
<td>232</td>
</tr>
<tr>
<td>High Tech Center Tutorial/Assistance Class</td>
<td>232</td>
</tr>
<tr>
<td>Lifelong Learning for the Special Needs Population</td>
<td>232</td>
</tr>
<tr>
<td>English as a Second Language (ESL)</td>
<td>232</td>
</tr>
<tr>
<td>English for Specific Uses</td>
<td>232</td>
</tr>
<tr>
<td>For Health Professionals</td>
<td>232</td>
</tr>
<tr>
<td>Levels 1-6 and Pre-Level 1</td>
<td>232</td>
</tr>
<tr>
<td>Speaking A, B and C</td>
<td>232</td>
</tr>
<tr>
<td>Writing A, B and C</td>
<td>232</td>
</tr>
<tr>
<td>TOEFL Prep</td>
<td>232</td>
</tr>
<tr>
<td>Health &amp; Safety</td>
<td>232</td>
</tr>
<tr>
<td>Intravenous Therapy for Radiologic Technology</td>
<td>232</td>
</tr>
<tr>
<td>Physical Fitness and Conditioning — Football</td>
<td>232</td>
</tr>
<tr>
<td>Physical Fitness and Conditioning — Weight Training</td>
<td>232</td>
</tr>
<tr>
<td>Physical Fitness and Conditioning — Wrestling</td>
<td>232</td>
</tr>
<tr>
<td>Water Safety — Phase 1</td>
<td>232</td>
</tr>
<tr>
<td>Occupational — Administrative Justice</td>
<td>233</td>
</tr>
<tr>
<td>Administration of Justice Report Writing</td>
<td>233</td>
</tr>
<tr>
<td>Administration of the Justice System</td>
<td>233</td>
</tr>
<tr>
<td>Community Relations</td>
<td>233</td>
</tr>
<tr>
<td>Concepts of Criminal Law</td>
<td>233</td>
</tr>
<tr>
<td>Concepts of Enforcement Services</td>
<td>233</td>
</tr>
<tr>
<td>Concepts of Traffic Services</td>
<td>233</td>
</tr>
<tr>
<td>Gangs in the Community/Corrections</td>
<td>233</td>
</tr>
<tr>
<td>Legal Aspects of Evidence</td>
<td>233</td>
</tr>
<tr>
<td>Narcotics Investigation</td>
<td>233</td>
</tr>
<tr>
<td>Principles and Procedures of Justice System</td>
<td>233</td>
</tr>
<tr>
<td>Principles of Investigation</td>
<td>233</td>
</tr>
<tr>
<td>Vice Control</td>
<td>233</td>
</tr>
<tr>
<td>Occupational — Agricultural Science</td>
<td>233</td>
</tr>
<tr>
<td>Animal Breeding</td>
<td>233</td>
</tr>
<tr>
<td>Animal Handling and Restraint</td>
<td>233</td>
</tr>
<tr>
<td>Animal Sanitation and Disease Control</td>
<td>233</td>
</tr>
<tr>
<td>Animal Science</td>
<td>233</td>
</tr>
<tr>
<td>Animal Nutrition</td>
<td>233</td>
</tr>
<tr>
<td>Artificial Insemination of Livestock</td>
<td>233</td>
</tr>
<tr>
<td>Aviculture — Cage and Aviary Birds</td>
<td>235</td>
</tr>
<tr>
<td>Beef Production</td>
<td>233</td>
</tr>
<tr>
<td>Canine Management</td>
<td>235</td>
</tr>
<tr>
<td>Diesel Engine Repair</td>
<td>236</td>
</tr>
<tr>
<td>Engine Diagnostics</td>
<td>234</td>
</tr>
<tr>
<td>Exotic Animal Management</td>
<td>233</td>
</tr>
<tr>
<td>Feline Management</td>
<td>235</td>
</tr>
<tr>
<td>Floral Design 1, 2, and 3</td>
<td>234</td>
</tr>
</tbody>
</table>
## Continuing Education

### NONCREDIT COURSE LISTINGS (continued)

<table>
<thead>
<tr>
<th>Course Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Food Production, Land Use and Politics: A Global Perspective</td>
<td>233</td>
</tr>
<tr>
<td>Home Gardening</td>
<td>233</td>
</tr>
<tr>
<td>Horse Behavior and Training</td>
<td>233</td>
</tr>
<tr>
<td>Horse Hoof Care</td>
<td>233</td>
</tr>
<tr>
<td>Horse Ranch Management</td>
<td>233</td>
</tr>
<tr>
<td>Horse Production</td>
<td>233</td>
</tr>
<tr>
<td>Horticultural Science</td>
<td>233</td>
</tr>
<tr>
<td>Hydraulics</td>
<td>244</td>
</tr>
<tr>
<td>Interior Landscaping</td>
<td>244</td>
</tr>
<tr>
<td>Integrated Pest Management</td>
<td>234</td>
</tr>
<tr>
<td>Landscape Construction Fundamentals</td>
<td>235</td>
</tr>
<tr>
<td>Landscape Design</td>
<td>244</td>
</tr>
<tr>
<td>Landscape Hardscape Applications</td>
<td>234</td>
</tr>
<tr>
<td>Landscape Irrigation – Design and Installation</td>
<td>234</td>
</tr>
<tr>
<td>Landscape Irrigation – Drip and Low Volume</td>
<td>244</td>
</tr>
<tr>
<td>Landscape Irrigation – Systems Management</td>
<td>234</td>
</tr>
<tr>
<td>Livestock Judging and Selection</td>
<td>233</td>
</tr>
<tr>
<td>Ornamental Plants – Herbaceous</td>
<td>234</td>
</tr>
<tr>
<td>Ornamental Plants – Trees and Woody Shrubs</td>
<td>234</td>
</tr>
<tr>
<td>Park Facilities</td>
<td>234</td>
</tr>
<tr>
<td>Park Management</td>
<td>244</td>
</tr>
<tr>
<td>Pet Shop Management</td>
<td>235</td>
</tr>
<tr>
<td>Plant Propagation/Greenhouse Management</td>
<td>233</td>
</tr>
<tr>
<td>Power Train Repair</td>
<td>234</td>
</tr>
<tr>
<td>Reptile Management</td>
<td>235</td>
</tr>
<tr>
<td>Sheep Production</td>
<td>233</td>
</tr>
<tr>
<td>Small Engine Repair</td>
<td>244</td>
</tr>
<tr>
<td>Soil Science and Management</td>
<td>234</td>
</tr>
<tr>
<td>Sports Turf Management</td>
<td>234</td>
</tr>
<tr>
<td>Swine Production</td>
<td>233</td>
</tr>
<tr>
<td>Tractor and Landscape Equipment Operations</td>
<td>234</td>
</tr>
<tr>
<td>Tropical and Coldwater Fish Management</td>
<td>235</td>
</tr>
<tr>
<td>Turf Grass Production and Management</td>
<td>234</td>
</tr>
<tr>
<td>Urban Arboriculture</td>
<td>235</td>
</tr>
<tr>
<td><strong>Occupational – Architectural Technology</strong></td>
<td></td>
</tr>
<tr>
<td>Architectural Computer Aided Design (CAD) Elements</td>
<td>235</td>
</tr>
<tr>
<td>Architectural Computer Aided Design (CAD), Advanced</td>
<td>235</td>
</tr>
<tr>
<td>Architectural Computer Aided Design (CAD) 3-D Illustration and Animation</td>
<td>235</td>
</tr>
<tr>
<td>Architectural Drawing</td>
<td>235</td>
</tr>
<tr>
<td>Basic CAD and Computer Application</td>
<td>235</td>
</tr>
<tr>
<td><strong>Occupational – Business</strong></td>
<td></td>
</tr>
<tr>
<td>Accounting, Fundamentals of</td>
<td>235</td>
</tr>
<tr>
<td>Accounting, Payroll and Tax</td>
<td>235</td>
</tr>
<tr>
<td>Accounting, Principles of Financial Management</td>
<td>235</td>
</tr>
<tr>
<td>Bookkeeping – Accounting</td>
<td>235</td>
</tr>
<tr>
<td>Business Communications</td>
<td>236</td>
</tr>
<tr>
<td>Business English</td>
<td>236</td>
</tr>
<tr>
<td>Business Mathematics</td>
<td>235</td>
</tr>
<tr>
<td>Business Organization and Management</td>
<td>236</td>
</tr>
<tr>
<td>Business Vocabulary</td>
<td>236</td>
</tr>
<tr>
<td>Business, Principles of Control</td>
<td>236</td>
</tr>
<tr>
<td>Continuous Quality Improvement (CQI), Principles of</td>
<td>235</td>
</tr>
<tr>
<td>Continuous Quality Improvement (CQI), Team Building</td>
<td>235</td>
</tr>
<tr>
<td>E-Commerce, Principles of</td>
<td>236</td>
</tr>
<tr>
<td>Exporting and Importing, Principles of</td>
<td>236</td>
</tr>
<tr>
<td>Financial Planning</td>
<td>236</td>
</tr>
<tr>
<td>Human Resources in Business</td>
<td>236</td>
</tr>
<tr>
<td>Human Resource Management</td>
<td>236</td>
</tr>
<tr>
<td>International Business, Principles of</td>
<td>236</td>
</tr>
<tr>
<td>International Marketing Concepts</td>
<td>236</td>
</tr>
<tr>
<td>Marketing, Principles of</td>
<td>236</td>
</tr>
<tr>
<td>Microcomputer Applications</td>
<td>236</td>
</tr>
<tr>
<td>Oral Communications for Business</td>
<td>236</td>
</tr>
<tr>
<td>Professional Selling</td>
<td>236</td>
</tr>
<tr>
<td>Real Estate Practice</td>
<td>236</td>
</tr>
<tr>
<td>Retail Store Management and Merchandising</td>
<td>236</td>
</tr>
<tr>
<td>Small Business Management</td>
<td>236</td>
</tr>
<tr>
<td>Special Issues in Business</td>
<td>236</td>
</tr>
<tr>
<td>Special Issues in Marketing</td>
<td>236</td>
</tr>
<tr>
<td>Special Issues in Marketing</td>
<td>236</td>
</tr>
<tr>
<td>Spell checking and Vocabulary for Success</td>
<td>236</td>
</tr>
<tr>
<td>Using Microcomputers in Financial Accounting</td>
<td>235</td>
</tr>
<tr>
<td>Using Microcomputers in Managerial Accounting</td>
<td>235</td>
</tr>
<tr>
<td>Ten-Key Calculations</td>
<td>235</td>
</tr>
<tr>
<td><strong>Occupational – Computer Operations</strong></td>
<td></td>
</tr>
<tr>
<td>Basic Computing, Levels 1, 2, and 3</td>
<td>237</td>
</tr>
<tr>
<td>Computer Keyboarding</td>
<td>236</td>
</tr>
<tr>
<td>Computer Keyboarding, Intermediate</td>
<td>237</td>
</tr>
<tr>
<td>Computer Keyboarding Laboratory</td>
<td>236</td>
</tr>
<tr>
<td>Computer Keyboard Skills Training</td>
<td>237</td>
</tr>
<tr>
<td>Computer Laboratory</td>
<td>237</td>
</tr>
<tr>
<td>Creative Computing</td>
<td>237</td>
</tr>
<tr>
<td>Data Entry</td>
<td>237</td>
</tr>
<tr>
<td>Desktop Publishing, Modifying Images for</td>
<td>237</td>
</tr>
<tr>
<td>Desktop Publishing Seminar</td>
<td>237</td>
</tr>
<tr>
<td>Illustrator for Desktop Publishers</td>
<td>237</td>
</tr>
<tr>
<td>InDesign or Pagemaker, Desktop Publishing with</td>
<td>237</td>
</tr>
<tr>
<td>Internet Research for Business</td>
<td>237</td>
</tr>
<tr>
<td>Internet Research, Introduction to</td>
<td>237</td>
</tr>
<tr>
<td>Office Computer Applications</td>
<td>237</td>
</tr>
<tr>
<td>Office Management Skills</td>
<td>237</td>
</tr>
<tr>
<td>Operating the Macintosh Computer</td>
<td>237</td>
</tr>
<tr>
<td>PowerPoint, Basic</td>
<td>237</td>
</tr>
<tr>
<td>PowerPoint, Desktop Presentations using</td>
<td>237</td>
</tr>
<tr>
<td>QuarkXpress, Desktop Publishing with</td>
<td>237</td>
</tr>
<tr>
<td>Transcription Techniques</td>
<td>237</td>
</tr>
<tr>
<td>Using Web Page Software</td>
<td>237</td>
</tr>
<tr>
<td>Word for Office/Business Professionals</td>
<td>237</td>
</tr>
<tr>
<td><strong>Occupational – Computer Technology</strong></td>
<td></td>
</tr>
<tr>
<td>A+ Certification Preparation</td>
<td>238</td>
</tr>
<tr>
<td>Home Theater, Home Integration and Home Security Systems</td>
<td>237</td>
</tr>
<tr>
<td>Network+ Certification Preparation</td>
<td>238</td>
</tr>
<tr>
<td>PC Operating Systems</td>
<td>237</td>
</tr>
<tr>
<td>PC Servicing</td>
<td>237</td>
</tr>
<tr>
<td>PC Troubleshooting</td>
<td>237</td>
</tr>
<tr>
<td><strong>Occupational – Correctional Science</strong></td>
<td></td>
</tr>
<tr>
<td>Control and Supervision of the Offender</td>
<td>238</td>
</tr>
<tr>
<td>Correctional Law</td>
<td>238</td>
</tr>
<tr>
<td>Correctional Science, Introduction to</td>
<td>238</td>
</tr>
<tr>
<td>Crime and Delinquency</td>
<td>238</td>
</tr>
<tr>
<td>Ethnic Relations in Corrections</td>
<td>238</td>
</tr>
<tr>
<td>Interviewing and Counseling in Corrections</td>
<td>238</td>
</tr>
<tr>
<td>Probation and Parole</td>
<td>238</td>
</tr>
<tr>
<td>Violent Offender, The</td>
<td>238</td>
</tr>
<tr>
<td><strong>Occupational – Electronics</strong></td>
<td></td>
</tr>
<tr>
<td>Communications Circuits Theory/Laboratory</td>
<td>238</td>
</tr>
<tr>
<td>Computer Simulation and Troubleshooting</td>
<td>238</td>
</tr>
<tr>
<td>Customer Relations for the Technician</td>
<td>239</td>
</tr>
<tr>
<td>Digital Electronics Lecture/Laboratory</td>
<td>239</td>
</tr>
<tr>
<td>Electronic Devices Theory/Laboratory</td>
<td>238</td>
</tr>
<tr>
<td>Electronic Assembly and Fabrication Lecture/Laboratory</td>
<td>239</td>
</tr>
<tr>
<td>Electronics Technology, Laboratory Studies in</td>
<td>239</td>
</tr>
<tr>
<td>Electronics Theory/Laboratory</td>
<td>238</td>
</tr>
<tr>
<td>Industrial Circuits Theory/Laboratory</td>
<td>238</td>
</tr>
<tr>
<td>Industrial Electronic Systems/Laboratory</td>
<td>238</td>
</tr>
<tr>
<td>Mathematics of Electronics – AC</td>
<td>239</td>
</tr>
</tbody>
</table>
## NONCREDIT COURSE LISTINGS (continued)

<table>
<thead>
<tr>
<th>Category</th>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mathematics of Electronics – DC</td>
<td>239</td>
<td></td>
</tr>
<tr>
<td>Mechatronics, An Introduction</td>
<td>238</td>
<td></td>
</tr>
<tr>
<td>Microprocessor Systems Lecture/Interfacing Laboratory</td>
<td>239</td>
<td></td>
</tr>
<tr>
<td>Microwave Communications Lecture/Laboratory</td>
<td>238</td>
<td></td>
</tr>
<tr>
<td>Microcomputers, Technical Applications</td>
<td>238</td>
<td></td>
</tr>
<tr>
<td>Radio/Telephone Design</td>
<td>239</td>
<td></td>
</tr>
<tr>
<td>Surface Mount Assembly and Rework, Advanced</td>
<td>239</td>
<td></td>
</tr>
<tr>
<td>Occupational – Electronics &amp; Computer Technology</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C-7 Low Voltage Systems License Preparation</td>
<td>239</td>
<td></td>
</tr>
<tr>
<td>Cabling and Wiring Standards</td>
<td>239</td>
<td></td>
</tr>
<tr>
<td>Electrical Fundamentals for Cable Installation</td>
<td>239</td>
<td></td>
</tr>
<tr>
<td>Electronic Troubleshooting 1 and 2</td>
<td>239</td>
<td></td>
</tr>
<tr>
<td>Fabrication Techniques for Cable Installation</td>
<td>239</td>
<td></td>
</tr>
<tr>
<td>Home Theater, Home Integration and Home Security Systems</td>
<td>239</td>
<td></td>
</tr>
<tr>
<td>Occupational – Engineering Design</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Basic CAD and Computer Applications</td>
<td>239</td>
<td></td>
</tr>
<tr>
<td>Civil Engineering Technology and CAD</td>
<td>240</td>
<td></td>
</tr>
<tr>
<td>Engineering CAD Applications</td>
<td>239</td>
<td></td>
</tr>
<tr>
<td>Engineering CAD 3-D Solids and Surfaces</td>
<td>239</td>
<td></td>
</tr>
<tr>
<td>Mechanical Design – Geometric Dimensioning and Tolerancing</td>
<td>239</td>
<td></td>
</tr>
<tr>
<td>Technical Engineering Drawing 1 and 2</td>
<td>239</td>
<td></td>
</tr>
<tr>
<td>Occupational – Fashion Design</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Clothing Fundamentals</td>
<td>240</td>
<td></td>
</tr>
<tr>
<td>Clothing, Advanced</td>
<td>240</td>
<td></td>
</tr>
<tr>
<td>Fashion, Introduction to</td>
<td>240</td>
<td></td>
</tr>
<tr>
<td>Fashion Computer Assisted Drawing</td>
<td>240</td>
<td></td>
</tr>
<tr>
<td>Fashion Design and Product Development 1, 2 and 3</td>
<td>240</td>
<td></td>
</tr>
<tr>
<td>Fashion Design by Draping</td>
<td>240</td>
<td></td>
</tr>
<tr>
<td>Fashion Patternmaking by Computer</td>
<td>240</td>
<td></td>
</tr>
<tr>
<td>Fashion Strategies</td>
<td>240</td>
<td></td>
</tr>
<tr>
<td>Illustration for Fashion and Costume Design</td>
<td>240</td>
<td></td>
</tr>
<tr>
<td>Patternmaking 2</td>
<td>240</td>
<td></td>
</tr>
<tr>
<td>Patternmaking, Basic</td>
<td>240</td>
<td></td>
</tr>
<tr>
<td>Retail Store Management and Merchandising</td>
<td>240</td>
<td></td>
</tr>
<tr>
<td>Occupational – Geography</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Geographic Information Systems, Introduction to</td>
<td>240</td>
<td></td>
</tr>
<tr>
<td>Occupational – Health</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acute Care Nursing Assistant</td>
<td>240</td>
<td></td>
</tr>
<tr>
<td>Anatomy and Physiology, Basic</td>
<td>240</td>
<td></td>
</tr>
<tr>
<td>BLS Heartsaver Course – Adult</td>
<td>240</td>
<td></td>
</tr>
<tr>
<td>Occupational – Interior Design</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fundamentals of Interior Design</td>
<td>241</td>
<td></td>
</tr>
<tr>
<td>Occupational – Manufacturing Technology</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3-D CAD for Mechanical Modeling</td>
<td>242</td>
<td></td>
</tr>
<tr>
<td>AutoCAD 2-D</td>
<td>242</td>
<td></td>
</tr>
<tr>
<td>AutoCAD Inventor</td>
<td>242</td>
<td></td>
</tr>
<tr>
<td>Blueprint Reading for Manufacturing</td>
<td>242</td>
<td></td>
</tr>
<tr>
<td>Manual CNC (Computerized Numerical Control) Operations</td>
<td>242</td>
<td></td>
</tr>
<tr>
<td>Manufacturing Processes, 1 and 2</td>
<td>242</td>
<td></td>
</tr>
<tr>
<td>MasterCAM 1</td>
<td>242</td>
<td></td>
</tr>
<tr>
<td>MasterCAM, Advanced</td>
<td>242</td>
<td></td>
</tr>
<tr>
<td>MasterCAM Solids</td>
<td>242</td>
<td></td>
</tr>
<tr>
<td>Parametric Solid Modeling for Desktop, Advanced</td>
<td>242</td>
<td></td>
</tr>
<tr>
<td>Parametric Solid Modeling for Manufacturing</td>
<td>242</td>
<td></td>
</tr>
<tr>
<td>SurfCAM, 1 and 2</td>
<td>242</td>
<td></td>
</tr>
<tr>
<td>Technical Mathematics – Manufacturing Applications</td>
<td>242</td>
<td></td>
</tr>
<tr>
<td>Occupational – Nutrition</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cooking for your Heart and Health</td>
<td>242</td>
<td></td>
</tr>
<tr>
<td>Vegetarian Cuisine</td>
<td>242</td>
<td></td>
</tr>
<tr>
<td>Occupational – Photography &amp; Photographics</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3D Modeling Techniques, Advanced Image Design</td>
<td>242</td>
<td></td>
</tr>
<tr>
<td>Applying Photos and Images in Multimedia</td>
<td>243</td>
<td></td>
</tr>
<tr>
<td>Color Photography</td>
<td>243</td>
<td></td>
</tr>
<tr>
<td>Commercial and Illustrative Photography</td>
<td>243</td>
<td></td>
</tr>
<tr>
<td>Computer Graphics Laboratory</td>
<td>242</td>
<td></td>
</tr>
<tr>
<td>Digital and Film Photography, Basic</td>
<td>243</td>
<td></td>
</tr>
<tr>
<td>Digital Cameras and Composition</td>
<td>243</td>
<td></td>
</tr>
<tr>
<td>Digital Color Management</td>
<td>242</td>
<td></td>
</tr>
<tr>
<td>Digital Design Systems, Introduction to</td>
<td>243</td>
<td></td>
</tr>
<tr>
<td>Digital Image Design with Illustrator &amp; Freehand</td>
<td>242</td>
<td></td>
</tr>
<tr>
<td>Digital Photography for the Beginner</td>
<td>242</td>
<td></td>
</tr>
<tr>
<td>Digital Portfolio</td>
<td>243</td>
<td></td>
</tr>
<tr>
<td>Exploring Color Photography</td>
<td>243</td>
<td></td>
</tr>
<tr>
<td>Fashion Photography</td>
<td>243</td>
<td></td>
</tr>
<tr>
<td>History of Photography</td>
<td>243</td>
<td></td>
</tr>
<tr>
<td>Laboratory Studies in Black &amp; White Photography</td>
<td>243</td>
<td></td>
</tr>
<tr>
<td>Laboratory Studies in Color Photography</td>
<td>243</td>
<td></td>
</tr>
<tr>
<td>Photo Editing with Photoshop</td>
<td>242</td>
<td></td>
</tr>
<tr>
<td>Photo Editing with Photoshop, Advanced</td>
<td>242</td>
<td></td>
</tr>
<tr>
<td>Photocommunication</td>
<td>243</td>
<td></td>
</tr>
<tr>
<td>Photographic Alternatives</td>
<td>243</td>
<td></td>
</tr>
<tr>
<td>Photography Portfolio Development</td>
<td>243</td>
<td></td>
</tr>
<tr>
<td>Portraiture and Wedding Photography</td>
<td>243</td>
<td></td>
</tr>
<tr>
<td>Professional Photography, Advanced</td>
<td>243</td>
<td></td>
</tr>
<tr>
<td>Occupational – Service Learning</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Service Learning/Seminar for Health Occupations</td>
<td>243</td>
<td></td>
</tr>
<tr>
<td>Service Learning/Seminar in Community Involvement</td>
<td>243</td>
<td></td>
</tr>
<tr>
<td>Service Learning and Community Involvement</td>
<td>243</td>
<td></td>
</tr>
<tr>
<td>Occupational – Special Needs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Assembly Repair Skills</td>
<td>243</td>
<td></td>
</tr>
<tr>
<td>Computer Operations</td>
<td>243</td>
<td></td>
</tr>
<tr>
<td>Occupational – Stained Glass Production</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stained Glass, Advanced</td>
<td>243</td>
<td></td>
</tr>
<tr>
<td>Stained Glass, Beginning</td>
<td>243</td>
<td></td>
</tr>
<tr>
<td>Occupational – Theater &amp; Theater Arts</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Children’s Theater</td>
<td>244</td>
<td></td>
</tr>
<tr>
<td>Play Rehearsal and Performance</td>
<td>244</td>
<td></td>
</tr>
<tr>
<td>Stagecraft</td>
<td>244</td>
<td></td>
</tr>
<tr>
<td>Technical Theater Practicum</td>
<td>244</td>
<td></td>
</tr>
</tbody>
</table>
### Continuing Education

#### NONCREDIT COURSE LISTINGS (continued)

<table>
<thead>
<tr>
<th>Course Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Theatrical Costuming</td>
<td>244</td>
</tr>
<tr>
<td>Theatrical Make-Up</td>
<td>244</td>
</tr>
<tr>
<td><strong>Occupational – Welding</strong></td>
<td></td>
</tr>
<tr>
<td>Arc Welding, Advanced</td>
<td>244</td>
</tr>
<tr>
<td>Arc Welding, Beginning</td>
<td>244</td>
</tr>
<tr>
<td>Automotive Welding, Cutting and Modification</td>
<td>244</td>
</tr>
<tr>
<td>Certification for Welders</td>
<td>244</td>
</tr>
<tr>
<td>Electric Arc Welding, Basic</td>
<td>244</td>
</tr>
<tr>
<td>Fabrication and Construction Welding</td>
<td>244</td>
</tr>
<tr>
<td>Gas Tungsten Arc Welding</td>
<td>244</td>
</tr>
<tr>
<td>Metal Sculpture</td>
<td>244</td>
</tr>
<tr>
<td>Oxyacetylene Welding</td>
<td>244</td>
</tr>
<tr>
<td>Pipe and Tube Welding</td>
<td>244</td>
</tr>
<tr>
<td>Print Reading and Computations for Welders</td>
<td>244</td>
</tr>
<tr>
<td>Semiautomatic Arc Welding Process</td>
<td>244</td>
</tr>
<tr>
<td>Welding, Introduction to</td>
<td>244</td>
</tr>
<tr>
<td>Welding Metallurgy</td>
<td>244</td>
</tr>
<tr>
<td><strong>Occupational – Woodworking</strong></td>
<td></td>
</tr>
<tr>
<td>Cabinetmaking/Woodworking</td>
<td>244</td>
</tr>
<tr>
<td>Woodworking, Beginning</td>
<td>244</td>
</tr>
<tr>
<td>Woodworking, Intermediate</td>
<td>244</td>
</tr>
<tr>
<td><strong>Older Adults</strong></td>
<td></td>
</tr>
<tr>
<td>Art Fundamentals, Introduction to</td>
<td>244</td>
</tr>
<tr>
<td>Ceramics</td>
<td>245</td>
</tr>
<tr>
<td>Ceramics – Hand Construction</td>
<td>245</td>
</tr>
<tr>
<td>Ceramics – Intermediate Production</td>
<td>246</td>
</tr>
<tr>
<td>China Painting</td>
<td>245</td>
</tr>
<tr>
<td>Chorale, Collegiate</td>
<td>246</td>
</tr>
<tr>
<td>Chorale, Masterworks</td>
<td>246</td>
</tr>
<tr>
<td>Concert Band</td>
<td>246</td>
</tr>
<tr>
<td>Concert Music</td>
<td>246</td>
</tr>
<tr>
<td>Craft Painting for Business Opportunities</td>
<td>246</td>
</tr>
<tr>
<td>Creative Expression through Music</td>
<td>246</td>
</tr>
<tr>
<td>Creative Writing – Fiction</td>
<td>245</td>
</tr>
<tr>
<td>Creative Writing – Poetry</td>
<td>245</td>
</tr>
<tr>
<td>Creative Writing (Writing your Autobiography)</td>
<td>245</td>
</tr>
<tr>
<td>Decorative Art Production for Retail Sales, Beginning</td>
<td>246</td>
</tr>
<tr>
<td>Decorative Art Production for Retail Sales, Intermediate</td>
<td>246</td>
</tr>
<tr>
<td>Drawing, Beginning</td>
<td>245</td>
</tr>
<tr>
<td>Drawing – Beginning through Advanced</td>
<td>245</td>
</tr>
<tr>
<td>Elementary Organ</td>
<td>246</td>
</tr>
<tr>
<td>Ensemble</td>
<td>246</td>
</tr>
<tr>
<td>Exhibition Design and Professional Practice, An Introduction</td>
<td>245</td>
</tr>
<tr>
<td>Fall Prevention – Balance and Mobility</td>
<td>246</td>
</tr>
<tr>
<td>Handcrafted Needlework for Retail Sales and Boutiques</td>
<td>246</td>
</tr>
<tr>
<td>Health Cooking</td>
<td>245</td>
</tr>
<tr>
<td>Jazz Band</td>
<td>246</td>
</tr>
<tr>
<td>Jazz Improvisation</td>
<td>246</td>
</tr>
<tr>
<td>Jazz Improvisation – Instrumental or Voice</td>
<td>246</td>
</tr>
<tr>
<td>Jewelry/Lapidary Production Design</td>
<td>246</td>
</tr>
<tr>
<td>Jewelry Production and Design for Retail Sales</td>
<td>246</td>
</tr>
<tr>
<td>Laboratory Band</td>
<td>246</td>
</tr>
<tr>
<td>Lettering Styles and Advertising Calligraphy</td>
<td>246</td>
</tr>
<tr>
<td>Lifelong Learning for Older Adults</td>
<td>245</td>
</tr>
<tr>
<td>Lifelong Learning – Crafts</td>
<td>245</td>
</tr>
<tr>
<td>Lifelong Learning – Current World Events</td>
<td>245</td>
</tr>
<tr>
<td>Lifelong Learning – Physical Fitness</td>
<td>245</td>
</tr>
<tr>
<td>Mobility through Exercise – Physical Conditioning</td>
<td>246</td>
</tr>
<tr>
<td>Mobility through Exercise – Physical Fitness using Music</td>
<td>246</td>
</tr>
<tr>
<td>Mobility through Exercise – Slow Stretch/Tai Chi Movement</td>
<td>246</td>
</tr>
<tr>
<td>Mobility through Exercise – Strength Training using</td>
<td></td>
</tr>
<tr>
<td>Resistance Bands</td>
<td>246</td>
</tr>
<tr>
<td>Mobility through Exercise – Yoga</td>
<td>246</td>
</tr>
<tr>
<td>Mobility through Exercise – Water Exercise</td>
<td>246</td>
</tr>
<tr>
<td>Oil Painting</td>
<td>245</td>
</tr>
<tr>
<td>Painting</td>
<td>245</td>
</tr>
<tr>
<td>Printing – Relief &amp; Lithography</td>
<td>245</td>
</tr>
<tr>
<td>Printmaking – Silk Screen and Intaglio</td>
<td>245</td>
</tr>
<tr>
<td>Printmaking – Silk Screening</td>
<td>245</td>
</tr>
<tr>
<td>Production of Boutique Craft for Retail Sales</td>
<td>246</td>
</tr>
<tr>
<td>Quilting</td>
<td>245</td>
</tr>
<tr>
<td>Sculpture, Beginning</td>
<td>245</td>
</tr>
<tr>
<td>Sculpture, Life</td>
<td>245</td>
</tr>
<tr>
<td>Sculpture – Mold Making</td>
<td>245</td>
</tr>
<tr>
<td>Sculpture – Special Effects Makeup</td>
<td>245</td>
</tr>
<tr>
<td>Self-Defense, Beginning</td>
<td>246</td>
</tr>
<tr>
<td>Sewing and Design</td>
<td>246</td>
</tr>
<tr>
<td>Watercolor Painting</td>
<td>245</td>
</tr>
<tr>
<td><strong>Parent Education</strong></td>
<td></td>
</tr>
<tr>
<td>Parent Participation Pre-School</td>
<td>246</td>
</tr>
</tbody>
</table>
**BASIC SKILLS**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>BS ABE01</td>
<td>Career Information and Guidance</td>
</tr>
<tr>
<td>BS ABE02</td>
<td>Adult Basic Education</td>
</tr>
<tr>
<td>BS ABE03</td>
<td>Adult Basic Education—Leadership Development</td>
</tr>
<tr>
<td>BS ABE04</td>
<td>Guidance and Orientation to Special Programs</td>
</tr>
<tr>
<td>BS ABE05</td>
<td>Career Development</td>
</tr>
<tr>
<td>BS ABE06</td>
<td>Basic Skills Foundation</td>
</tr>
<tr>
<td>BS ABE07</td>
<td>Re-Entry Work Skills Needed for Today’s Workforce</td>
</tr>
<tr>
<td>BS CNSL5</td>
<td>Career/Life Planning</td>
</tr>
<tr>
<td>BS HSDM</td>
<td>High School Academic Decathlon</td>
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**BSHS**

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<thead>
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<tbody>
<tr>
<td>BSHS ADRW</td>
<td>High School Expository Writing &amp; Critical Reading</td>
</tr>
<tr>
<td>BSHS ALG1</td>
<td>High School Algebra 1</td>
</tr>
<tr>
<td>BSHS ALG2</td>
<td>High School Algebra 2</td>
</tr>
<tr>
<td>BSHS ARIT</td>
<td>High School Art &amp; Creative Expression</td>
</tr>
<tr>
<td>BSHS BI0</td>
<td>High School Biology</td>
</tr>
<tr>
<td>BSHS BIOC</td>
<td>High School Chemistry</td>
</tr>
<tr>
<td>BSHS CHN1</td>
<td>High School - Chinese 1</td>
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**BSHS ECON**

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<tr>
<th>Title</th>
<th>Description</th>
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<tbody>
<tr>
<td>High School Economics</td>
<td>Economic principles and practices for high school students. Includes scarcity and choice, opportunity cost and trade-offs, economic systems, institutions and incentives. Markets and prices, supply and demand, competition income distribution, monetary policy, international economics and the role of government.</td>
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**BSHS EELA**

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>CAHSEE Prep: English Language Arts</td>
<td>CAHSEE English Language Arts, semesters A/B, is designed to stress the fundamentals of the high school English language arts standards. Genres and their characteristics: word analysis, reading comprehension, literary response and analysis, writing strategies, writing conventions and writing applications.</td>
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**BSHS EEMA**

<table>
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<tbody>
<tr>
<td>High School Diploma and Referral Program Learning</td>
<td>Designed to assist adult students who need coursework to complete their high school diploma requirements. Coursework is aligned to California K-12 State Content Standards. Students are awarded a high school diploma upon completion of the required credits and competencies.</td>
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**BSHS EASC**

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<tbody>
<tr>
<td>High School Earth Science</td>
<td>Designed to stress the fundamentals of the study of Earth and space. Earth's place in the universe, dynamic Earth processes, energy in the earth system, biochemical cycles, structure and composition of the atmosphere and California geology.</td>
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**BSHS CIV**

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<tbody>
<tr>
<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.</td>
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**BSHS CPTC**

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<tbody>
<tr>
<td>High School Computer Technology</td>
<td>Includes proper technique and operations using a computer, introduction to the computer operating system, basic hardware configuration and office technology programs; document creation and editing using Microsoft Office (Word, Excel, PowerPoint); word processing, database management, spreadsheets and multimedia presentation for high school students.</td>
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<tr>
<td>CAHSEE Math, semesters A/B, is designed to stress the fundamentals of the high school math standards. Number sense, statistics, data analysis probability, algebra, functions, measurement, geometry, algebra I and mathematical reasoning.</td>
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</tr>
</tbody>
</table>
CONTINUING EDUCATION

BSHS ENG1 — High School English 1
Introduces high school students to the foundations of literature using genre and theme experiences. Includes exploration of folk tradition, poetry, fiction, nonfiction and informational and visual media. Vocabulary development, writing strategies and applications, reading comprehension, listening and speaking strategies, language conventions, listening and speaking applications, literary response and analysis.

BSHS ENG2 — High School English 2
Foundations of literature using genre and theme experiences for high school students. Exploration of oral tradition, poetry, fiction, nonfiction, drama and informational media. Vocabulary development, writing strategies and applications, reading comprehension, listening and speaking strategies, language convention, listening and speaking applications, literary response and analysis.

BSHS ENG3 — High School English 3
Foundations of literature through American literature using a historical approach for high school students. Includes basic literature genres and techniques, and time-period based literature. Pre-colonial era, the American Revolution, the New England Renaissance, Slavery and the Civil War, the Frontier Era, the Modern Era, the Harlem Renaissance and Modern Drama.

BSHS ENG4 — High School English 4
Foundations of literature through British literature using the historical approach for high school students. Social, political and intellectual trends connected with the time periods. Anglo-Saxon, Medieval period, English Renaissance, Renaissance drama, the early seventeenth century, the Restoration and the eighteenth century, the Romantic Era, the Victorian Age, contemporary British and American literature.

BSHS GEOG — High School Geography
Physical and human aspects of world geography for high school students, and includes the physical features of the earth, climate and natural resources and their effects on human development. Topics studied in the context of the cultural, political, historical and religious aspects of both historical and modern life throughout the world.

BSHS GEOM — High School Geometry
Foundations of geometry applications for high school students. Points, lines, planes, angles, constructions, reasoning skills and proofs, congruent and parallel lines, congruent triangles, quadrilaterals, proportion and similarity, right triangles and trigonometry, circles, polygons, area, volume, coordinate geometry, loci and coordinate transformations.

BSHS GRAP — High School Advanced Graphics/Printing
Advanced skills in graphics for high school students. Photo offset lithography and screen process printing. Business aspects of printing and graphics. Laboratory use of printing equipment.

BSHS HLTH — High School - Health Education
Increases high school students’ awareness of health issues, includes 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.

BSHS JOUR — High School Journalism
Prepares high school students to work on school newspapers. Includes writing clear, concise and interesting articles, development of grammar, spelling, punctuation, style, sentence and paragraph form, interviewing techniques, news writing skills and analysis abilities to critique newspapers and periodicals.

BSHS KEY — High School - Typing/Keyboarding
Develops the skill of keyboarding for high school students. Emphasis will be placed on learning alphabetic and numeric keys by touch using appropriate techniques. Students will build on basic skills to improve speed and accuracy in order to create, format and edit a variety of documents.

BSHS LSCI — High School Life Science
Fundamental characteristics of living things, simple organisms, plants, animals, human biology, physiology, genetics, heredity, adaptation, evolution and ecology for high school students.

BSHS MTH1 — High School General Math
Basic mathematical foundations needed for daily life and higher level math courses for high school students. Includes concepts, methods and applications of basic math skills. Topics include whole numbers, fractions, decimals, measurement, basic geometry, basic strategies, ratios, percentages, beginning pre-algebra and preparations for algebra.

BSHS MTH2 — High School Pre-Algebra
Basic mathematical foundations needed for daily life and higher level math courses for high school students. Includes concepts, methods and applications of basic math skills. Topics include whole numbers, fractions, decimals, measurement, basic geometry, basic strategies, ratios, percentages, beginning pre-algebra and preparations for algebra.

BSHS MTH3 — High School General Math
Basic mathematical foundations needed for daily life and higher level math courses for high school students. Includes concepts, methods and applications of basic math skills. Topics include whole numbers, fractions, decimals, measurement, basic geometry, basic strategies, ratios, percentages, beginning pre-algebra and preparations for algebra.

BSHS MUSC — High School - Music Appreciation
Historical, cultural and genre-based aesthetic valuation of music for high school students. Vocabulary, interaction of words and music, influence of religious, theater, government and culture on musical style.

BSHS NS1 — High School - Natural Science 1
Integration of biological, physical and earth science. Introduces high school students to scientific measurement and computation, the use of scientific laboratory equipment, and basic scientific writing. Addresses overall skill sets in the areas of reading, writing and note-taking as it relates to science.

BSHS NS2 — High School - Natural Science 2
Integration of advanced biological, physical and earth science. Introduces high school students to scientific measurement and computation, the use of scientific laboratory equipment and basic scientific writing. Addresses overall skill sets in the areas of reading, writing and note-taking as it relates to science.

BSHS PHIL — High School Philosophy
Introduces high school students to the terminology, problems and major philosophers from ancient to modern times. Includes the different fields of philosophy and the different systems within those fields. Emphasis will be placed on ethics and morals as they relate to students understanding and analysis of events and theories.

BSHS PHYS — High School Physical Science
Introduces high school students to the terminology, problems and major philosophers from ancient to modern times. Includes the different fields of philosophy and the different systems within those fields. Emphasis will be placed on ethics and morals as they relate to students understanding and analysis of events and theories.

BSHS PLNG — High School Planning and Guidance
Designed to help high school students transition from arithmetic to algebra. Includes concepts, methods and applications of pre-algebra. Topics include operations with integers, expressions, equations, inequalities, percents, proportions, graphing, computational skills and problem-solving skills.

BSHS PREA — High School Pre-Algebra
Introduces high school students to the terminology, problems and major philosophers from ancient to modern times. Includes the different fields of philosophy and the different systems within those fields. Emphasis will be placed on ethics and morals as they relate to students understanding and analysis of events and theories.

BSHS PSY — High School Psychology
Introduces high school students to the terminology, problems and major philosophers from ancient to modern times. Includes the different fields of philosophy and the different systems within those fields. Emphasis will be placed on ethics and morals as they relate to students understanding and analysis of events and theories.

BSHS SOC — High School Sociology
Introduces high school students to the terminology, problems and major philosophers from ancient to modern times. Includes the different fields of philosophy and the different systems within those fields. Emphasis will be placed on ethics and morals as they relate to students understanding and analysis of events and theories.

BSHS SPCH — High School Speech and Communication
Designed to develop the aspects of oral communication including voice, diction, poise and ease by preparation and practice in making small speeches, and participating in discussions, debates and oral interpretation. High school students will improve their writing and speaking organization through selection and arrangement of material, through transitions and rhetorical effect.
BSHS SPN1 — High School Spanish, Conversation and Writing
Fundamentals of pronunciation and grammar, practical vocabulary, and the ability to understand, read, write and speak basic Spanish for high school students. Geography, customs and culture of Spanish-speaking countries.

BSHS SPN2 — High School Spanish 2
Designed for high school students to advance the fundamentals of pronunciation and grammar, practical vocabulary and the ability to understand, read, write and speak geography, customs, Spanish literature and culture of Spanish-speaking countries.

BSHS SS — High School - Single Survival “On Your Own - Preparation for Adult Living
This course increases student knowledge and ability in skills necessary for everyday living. High school students determine goals and values, education choices, career options, money management, health care and personal needs.

BSHS SSK — High School - Study Skills
Designed to help high school students become better learners and prepare for success in school and at work. Covers strategies and methods to enhance the students’ ability to study and learn both individually and in a group. Topics include note taking, time management, test taking, organization, memorization, learning styles and conducting research.

BSHS STG — High School Stagecrafts
Aspects for high school productions and creation of theatrical support services. Set design, set painting, construction, lighting and sound design and operations. Costume and make-up application, theater operations and stage management.

BSHS TAL2 — High School Topics in Algebra 2
Preparation for success in high school Algebra 2. Focuses on the basic and introductory concepts, formulas and standards of Algebra 2, including solutions of linear and quadratic equations, graphing, exponential functions and the complex number system.

BSHS TGD — High School Topics in Geometry
Preparation for success in high school geometry. Focuses on the basic and introductory concepts, formulas and standards of geometry, including points, lines, planes, angles, reasoning skills and proofs, perpendicular and parallel lines, triangles, quadrilaterals, polygons, area and volume.

BSHS USH — High School United States History
Designed for high school students to study various themes in history in order to examine the past from pre-colonial to the modern era. Includes the examination of politics and history, the role of ideas, economics and history, and the importance of cultural development. Assessment of religion in history, the role of individuals, the impact of science and technology, the environment and history and social life.

BSHS VDEO — High School Video and Media Production
Basics of video production and software. Includes storyboards, directing, filming, sound, editing, transitions, titles, voice-overs, music, film analysis, editing and producing software as appropriate for high school students.

BSHS WHS — High School World History
Gives high school students an understanding of humanity through the basic themes present in history: economics, politics, the roles of ideas, the importance of cultural development, religion, the roles of individuals, the impact of science and technology, geographical impact and cultural development. Students will also study pre-history to the modern era.

BSHS WREX — High School Expository Writing
Preparation for success in expository writing for high school students. Focuses on developing essay writing including introductory paragraphs, body paragraphs and concluding paragraphs in expository, descriptive, narrative and argumentative essays.

BS LANG1 — Language Skills Laboratory
Designed for ESL students either enrolled in a ESL class or awaiting admission, to enhance pronunciation, listening, writing and comprehension skills. Also open to AMLA, Foreign Language, American Sign Language students to enhance skills in the primary target language.

BS LANG2 — ESL Computer/Language Skills Lab
Enhance student’s communication skills by providing access to the internet, thereby completing assignments for courses offered throughout the college.

BS LRN01 — Short Term Review
Intensive review in the following subjects: reading, comprehension, vocabulary, grammar, basic math, pre-algebra, and algebra. Computer programs, instructional materials, and individual assistance are provided.

BS LRN02 — Math Skills Review
Increase basic math knowledge and reduce math anxiety. Topics include fractions, decimals, ratios, proportions, percents, and the application of these skills in life and work situations.

BS LRN06 — Personal Computer Applications
Increase typing and ten-key speed using computer software. Includes current word processing, spreadsheet, database software, keyboarding techniques, including correct posture; introduction to e-mail and the Internet; time management, decision-making, problem-solving and creative thinking.

BS LRN07 — Reading Acceleration
Provides instruction and practice in techniques of reading acceleration and variable reading speeds. Students who repeat will improve reading speed and comprehension rates.

BS LRN76 — Improving Reading Comprehension
Prepares students for reading informational materials. Topics include spelling, reading comprehension, dictionary usage and how to read a textbook.

BS LRN81 — Improving Writing
Offers assistance to students who wish to improve prewriting, writing, editing and revising. Provides instruction in content and structure of sentences; paragraphs and essays; emphasizes development in writing through the integration of grammar and critical thinking.

BS MTH01 — Developmental Mathematics Concepts and Application
Hands-on activities and practical applications of algebraic principles: elementary geometry, signed numbers, ratio and proportion, factoring, pre-algebra, linear and quadratic equations, complex numbers, graphing, functions, sequences, linear and non-linear inequalities and systems, progressions, and sigma notation.

BS TR10A — Introduction to Tutoring
Introduction to tutoring, with an emphasis on tutoring strategies, problem solving, and working with a diverse student population.

BS TR10B — Tutoring in the Language Arts
Prerequisite: Permission of Tutorial Specialist
Tutoring in the language arts with an emphasis on approaches to working with students on written drafts and addressing the needs of non-native speakers.

BS TR10C — Tutoring as a Supplemental Instructor
Permission of Tutorial Specialist recommended
Tutoring as a Supplemental Instructor with an emphasis on tutoring in the classroom and in small groups under the supervision of a designated instructor.

BS TR10D — Tutoring in Mathematics
Tutoring in mathematics with an emphasis on strategies to promote active learning using mathematics and dealing with specific obstacles in developmental algebra.

BS TR01 — All Subject Tutoring
Assistance in basic English and mathematics skills through tutoring and computer-based learning. Tutorial assistance in other subject areas is also available.
CONTINUING EDUCATION

BS TR62 — Tutoring Techniques
Explores learning theories and tutoring techniques for tutoring individuals and small groups. Emphasis is placed on encouraging independent learning.

CITIZENSHIP

CITZ NAT — Citizenship for Naturalization
Intermediate and advanced students prepare for the interview for United States citizenship.

DISABLED STUDENTS

DSPS EL01 — 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 (DSPS) in order to register for this class. Designed for students with identified disabilities who have at least three academic units at Mt. SAC. Using adaptive technology, alternate media and specialized support, offers techniques and strategies to maximize abilities in academic classes. Students are required to provide their own data disks.

DSPS LRND3 — Adaptive Academic Preparation
Designed for students who have been accepted into the Brain Injury Program at Mt. SAC. Includes specialized instruction and the use of computer software to improve cognitive skills (attention, memory, reasoning, etc.) needed for academic and/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 LVL1 — ESL - Level 1
Beginning to low English students build vocabulary, grammar and communication skills.

ESL LVL2 — ESL - Level 2
High beginning English students build upon their base of vocabulary and improve grammar understanding through practice of listening, speaking, reading and writing skills. Students work independently and in groups to develop projects and make presentations that are meaningful to them.

ESL LVL3 — ESL - Level 3
Low intermediate level students improve English communication and grammar through practice of listening, speaking, reading and writing skills. Activities include team projects, presentations and exams in preparation for academic/vocational success and encourage civic participation.

ESL LVL4 — ESL - Level 4
High intermediate level students improve English communication and grammar through practice of listening, speaking, reading and writing skills. Activities include team projects, presentations and exams in preparation for academic/vocational success and encourage civic participation.

ESL LVL5 — ESL - Level 5
Low advanced level students improve English communication and grammar understanding through practice of listening, speaking, reading and writing skills. Activities include team projects, presentations and exams in preparation for 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 PLV1 — 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 reading and speaking 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.通过 group discussion and short presentations, students practice speaking with clarity and fluency, present their ideas and opinions, and make cultural comparisons.

ESL SPKC — ESL - Speaking C
Advanced level students expand listening and speaking strategies to facilitate academic preparation, workplace advancement and civic participation. Focus is on fluency, grammatical accuracy and appropriate social register. Activities include use of authentic material in group tasks and class presentations.

ESL TOEFL — TOEFL Preparation
Advanced ESL students improve grammar, speaking and writing in preparation for standardization tests such as TOEFL.

ESL VNLTH — English As A Second Language for Health Professionals
Advanced ESL students improve medical vocabulary and English skills for healthcare situations.

ESL WRTA — ESL Writing - A
Beginning level students develop reading and writing skills that set the foundation for their English literacy. Material is based on familiar topics and American customs. Focus is on vocabulary expansion, introduction to reading passages, and accuracy in sentence-level writing.

ESL WRTB — ESL Writing - B
Intermediate level students improve English reading and writing proficiency through a variety of reading material and writing topics. Students gain fluency and confidence through abridged book reports, process writing and peer editing, primarily at the paragraph level.

ESL WRTC — ESL Writing - C
Advanced level students expand English reading and writing proficiency through a range of genres. American-style process writing is practiced in order to facilitate academic preparation and workplace advancement. Focus will be on interpretation of authentic material and development of editing strategies.

HEALTH AND SAFETY

HLSF PEWRT — Physical Fitness and Conditioning - Weight Training
An over-all fitness and physical conditioning program using weight machines, free weights and Olympic lifting exercises. This course is intended for the beginner to advance exerciser. Improved results will be achieved through active participation for students who repeat the course.

HLSF PESWR — Physical Fitness and Conditioning – Wrestling
Wrestling to develop overall fitness and conditioning. Appropriate for beginning and advanced practitioners. Improved results will be achieved through active participation.

HLSF PESTF — Physical Fitness and Conditioning - Football
An increased level of physical conditioning will be attained through systematic and progressive exercises. These exercises include stretching, controlled running, muscular strength and power through weights, speed and agility developed through drills.
HLSF PEWEX — Water Exercise - Phase I
Water exercise program that provides an individual workout with an emphasis on strength development, cardiovascular fitness improvement and increased flexibility. Lap swimming lanes are available. Improved results will be achieved through active participation for students who repeat the course.

HLSF PEWJP — Physical Conditioning - Water Polo
Water Polo training to improve overall fitness and conditioning. Water polo drills and dry land exercises will be used to improve participant's strength, agility and aerobic condition.

OLDER ADULTS

OAD AT14 — Introduction to Art Fundamentals
An entry level course designed for non-art majors emphasizing creative expression through the visual arts. Painting, drawing, printmaking, and sculpture are explored to introduce the student through various media to the arts.

OAD AT15B — Drawing: Beginning
Drawing emphasizing further development of perceptual and technical skills attained in ARTD 15A. Students will advance their abilities in dry and fluid media, while expanding their use of the formal elements and principles in both representational and expressionistic styles.

OAD AT20 — Intro Exhibition Design and Professional Practice
Provides knowledge and hands-on skills in exhibition design and installation to display an esthetically effective art exhibition. Students will be familiarized with the necessary practical knowledge used by an emerging artist; historical and contemporary terms, examination of culture and universal symbology and application, issues, theories, movements and media in the context of art exhibition productions.

OAD AT25A — Painting
Emphasizes creative self-expression through the painting media. Students will develop the ability to conceptualize and solve compositional and technical painting problems.

OAD AT30A — Ceramics
An exploration of ceramic techniques and creative expression. Includes vocabulary, theory, elements and principles of ceramic form through projects and critique.

OAD AT31 — Ceramics: Hand Construction
Basic methods of hand construction. Special projects in structural, architectural and sculptural form.

OAD AT40A — Sculpture - Beginning
An overview of traditional and contemporary approaches to sculpture. Emphasizes principles of sculptural design and concept development. Includes exploration of technique and materials as an integral part of creative expression.

OAD AT41A — Sculpture - Life
Modeling from the human figure with emphasis on composition, gesture, motion and human anatomy as it informs sculptural form. Development of perceptual and technical skills in clay modeling from the human figure.

OAD AT41B — Sculpture - Life
Sculptural study of human figure with emphasis on composition and human anatomy. Advanced projects using materials and techniques suitable for the human form. Students who repeat this course will further develop perceptual skills in clay modeling from the human figure.

OAD AT42 — Sculpture: Mold Making
Construction and use of flexible and plaster molds. Students who repeat this course will improve skills by further instruction and practice.

OAD AT43 — Introduction to Printmaking
Introduction to creative techniques in fine art printmaking using relief and intaglio projects. Emphasis is on developing skills, vocabulary and critical understanding and analysis of its aesthetics, historical context, cultural traditions and craftsmanship through projects, discussion and oral/written criticism.

OAD AT44 — Printmaking - Relief and Lithography
Creative techniques in fine art printmaking focusing on lithography. The possibilities of combination of planographic with relief methods will be explored. Emphasis is on developing skills, vocabulary and critical understanding and analysis of its aesthetics, historical context and craftsmanship through projects, discussion and oral/written criticism.

OAD AT45 – Printmaking – Collagraph/Monotype/Silkscreen
Creative techniques in fine art printmaking using collagraphs, monotypes, monoprints and stencil projects. Emphasis is on developing skills, vocabulary and critical understanding and analysis of mixed media printmaking's aesthetics, historical context and craftsmanship through projects, discussion and oral/written criticism.

OAD AT46 — Sculpture: Special Effects Makeup
Advisory Prerequisite: OAD AT 41A and/or OAD AT42
Modeling, molding, casting and application of special effects make-up appliances and masks to the human anatomy as it informs sculptural and specialized molding and casting techniques and materials.

OAD ELL04 — Lifelong Learning for Older Adults
Improve and/or maintain the mental fitness of the older adult through educational activities promoting critical thinking skills. Students will be presented with mental exercises and intellectual stimulation to enhance cognitive skills.

OAD ELL05 — Lifelong Learning Through Current World Events
Presents current events in a variety of ways to provide education about local, national and world issues to promote mental fitness of the older adult.

OAD ENG8A – Creative Writing – Fiction
Elements, processes and techniques of fiction writing. Includes genre, settings, point of view, character sketch, plot development, description and dialogue with an emphasis on student development as a writer of fiction through practice and discussion.

OAD ELL04 — Lifelong Learning for Older Adults
Improve and/or maintain the mental fitness of the older adult through educational activities promoting critical thinking skills. Students will be presented with mental exercises and intellectual stimulation to enhance cognitive skills.

OAD FNA01 — China Painting
Introduces the fine art of chin painting through the basic understanding of the color wheel, design, etching on china, gold work, luster, raised paste for gold, matte colors and use of the kiln. Students progress at their own rate and will receive a supply list at the first class meeting.

OAD FNA03 — Oil Painting
Provides the fundamental principles of drawing, design, color and composition for oil painting. Emphasis will be on creative expression to develop primary skills and techniques for oil painting as they relate to composition and technique. Students will receive a supply list at the first class meeting.

OAD FNA04 — Watercolor Painting
The fundamental principles of watercolor painting. Emphasis will be on creative expression to develop primary skills for watercolor painting as they relate to composition and technique. Students will receive a supply list at the first class meeting.

OAD FNA05 — Creative Writing (Writing Your Autobiography)
Write about your own memories and experiences for the purpose of creating articles, souvenir memoirs, and construction of your life story through discussion, sharing of experiences and recalling past events. This class is suitable for all levels of writers; includes writing exercises and analysis. Long-hand method of writing will be used.

OAD FNA32 — Drawing - Beginning Through Advanced
Drawing while emphasizing the development of perceptual and technical skills. Students will advance their abilities in dry and fluid media while expanding their use of the formal elements and principles. The development of works of art will utilize observation of single objects, still life, and landscape for representation and expression. Students will receive a supply list at the first class meeting.
Continuing Education

OAD FRK04 — Quilting
Learn patchwork, applique, and various ways to form quilting patterns and gain working knowledge of hand or machine quilting. Information on materials, equipment, planning, design and general methods in creating a quilt will be covered. Students will receive a supply list at the first class meeting.

OAD HTH02 — Healthy Cooking for Older Adults
Plan simple, healthy meals for the older adult. Identify how to stock a kitchen with quality foods as dietary guidelines are presented. Includes easy microwave oven cooking, cuisine for singles and doubles, and meals to cook once and eat twice! Food safety concerns will also be discussed.

OAD MOX01 — Mobility Through Exercise Physical Conditioning
For older adults who are interested in improving their physical condition. Involves all major muscles promoting strength and toning, improving range of motion and flexibility, and increasing endurance and coordination. Students are encouraged to participate at their own level. Appropriate music is utilized to enhance student motivation and class participation.

OAD MOX02 — Mobility Through Exercise - Slow Stretch / Thai Chi Movement
Designed to increase strength and agility while improving peace of mind and reducing stress. Includes low impact movements that flow at a smooth, even tempo, making for improved balance as body weight is shifted. The movements will result in high levels of body control and increased powers of motion concentration. Several different moves of Tai Chi will be experienced.

OAD MOX04 — Mobility Through Exercise - Yoga
Yoga is an ancient system of gentle stretching exercises and breathing techniques that enhance physical well-being. Focuses on Yoga methods that improve stamina, lung capacity, flexibility, muscle tone, circulation, cardiovascular performance and respiration.

OAD MOX06 — Mobility Through Exercise - Water Exercise
This low impact water exercise program involves aerobic conditioning, strength training, and stretching in a water environment which minimizes impact on joints and the body. Swimming skills are not required for participants. This is not an individual swim class.

OAD MOX07 — Mobility Through Exercise - Physical Fitness Using Music to Enhance Skill Development
Enables students to increase balance, coordination, strength, flexibility and memory function through a progressive fitness program using music to enhance skill development.

OAD MOX09 — Mobility Through Exercise - Strength Training Using Resistance Bands
Resistance training for isolation of targeted muscle groups to increase strength, range of motion, flexibility, and increase bone density using toner bands. Designed to challenge all major muscles. Students are encouraged to participate at their own level. In addition, slow stretching and breathing techniques will be taught.

OAD MOX10 — Beginning Self-Defense for Older Adults
Effective self-defense techniques for older adults to use at home, work, traveling or just out and about on a daily basis. The focus is on techniques that are highly effective and easy to learn, with no prior experience necessary. Learn self-defense techniques and gain knowledge to reduce your risk of becoming a victim of crime.

OAD MOX11 — Fall Prevention: Balance and Mobility
Addresses, particularly for older adults, the risks and fears associated with falling. Includes setting realistic goals, minimizing environmental risks and balance exercises.

OAD MUSCE — Creative Expression through Music
Promotes creative expression through music and includes discussion, singing, listening and interaction for older adults. Concentration will be on various musical styles and historical periods in which music plays specific roles.

OAD MS19 — Elementary Organ
Group and individual instruction in registration, pedal technique, and interpretation of standard organ literature will be given in this course.

OAD MS25A — Jazz - Improvisation (Instrumental Or Voice)
Styles and techniques of improvisation. Each student must furnish his/her own instrument and be able to perform individually and with the class. Students who repeat this course will improve skills through further instruction and practice.

OAD MS32 — Masterworks Chorale
This SATB choir will perform major choral works ranging from the Baroque era to the 20th century. Although there is no audition required for this group, prior choral experience is preferred. In addition to preparation and performance of quality choral literature from all genres, time will be spent on vocal development and music theory.

OAD MS36 — Concert Band
The group will study and perform standard and new band literature. Experience will be given to capable student directors, soloists, arrangers, and composers. Attendance is required at all public performances.

OAD MS38 — Ensemble
The study and performance of music written for small ensembles. Students who repeat this course will improve skills through further instruction and practice. 

OAD MS39 — Laboratory Band
Study and performance of jazz and popular music of all types. Provides the necessary training and experience for MUS 47, Jazz Band, or for the improvement of skills necessary for employment in the field. Students who repeat this course will improve skills through further instruction and practice.

OAD MS47 — Jazz Band
Lectures, demonstrations, recordings, rehearsals, and performance will cover all types of popular music and jazz. Preference will be given to performers playing more than one instrument.

VOC ESD02 — Production of Boutique Craft for Retail Sales
Prepares the student to create individual designs for mass production and/or one-of-a-kind crafts. Marketing, pricing, cost analysis and proper care of equipment included. Students will receive a supply list at the first class meeting.

VOC ESD03 — Lettering Styles and Advertising Calligraphy
Presents styles of calligraphy as they are used in the arts, media, and advertising fields. Includes proper placement and proper size of lettering styles. Students will receive a supply list at the first class meeting.

VOC ESD05 — Intermediate Ceramic Productions
Includes the techniques used to create finished ceramic pieces; including the art of chalking on ceramics in the bisque form and wood surfaces by using oil based stains, metallic stains, colored creams, rubs and metallic and bronze finishes. Finalizing some pieces with electrical parts and mounting on wood bases will be considered. Discusses proper equipment usage and maintenance. Marketing and cost analysis will be covered. Students will receive a supply list at the first class meeting.
**VOC ESD06 — Craft Painting for Business Opportunities**
Painting on all types of surfaces including fabric, glass, wood, tin, plaster and plastic. Creativity and individual expression will be encouraged. Special painting techniques on each type of surface will be demonstrated and discussed. Includes product design, marketing and proper use of equipment and maintenance. Marketing and cost analysis will also be covered. Students will receive a supply list at the first class meeting.

**VOC ESD07 — Handcrafted Needlework for Retail Sales and Boutiques**
Presents basic needlework techniques in knitting, crocheting, needlepoint, crevel embroidery, and plastic canvas for mass production as well as one-of-a-kind creations. Students solve fitting problems and make professional-looking garments. Includes proper yarn selection, pattern selection, proper maintenance of equipment and organization of work. Students will receive a supply list at the first class meeting.

**VOC ESD08 — Jewelry Production and Design for Retail Sales**
Wire-worked jewelry design and production for marketing. Techniques such as wire wrapping, coiling, hammering, etc., which may incorporate beads, cabochon stones and free-form gemstone slabs will be covered. Discussion of proper equipment and maintenance, proper display for sales purposes, pricing and inventory control will be taught. Students will receive a supply list at the first class meeting.

**VOC ESD09 — Sewing and Design**
Presents basic sewing techniques for mass production as well as one-of-a-kind creations. Learn to solve fitting problems and make professional-looking garments. Tailoring, pattern making, cutting and style design will be taught. Students are responsible for their own supplies and equipment. Proper maintenance of equipment and organization of work will be covered. Students will receive a supply list at the first class meeting.

**VOC ESD10 — Beginning Decorative Art Production for Retail Sales**
Introduction to acrylic paints and associated mediums including painting on a variety of surfaces. The use of tote decorative art brush strokes will be incorporated into a step-by-step method on specific projects. Marketing and pricing of finished products will be presented.

**VOC ESD11 — Intermediate Decorative Art Production for Retail Sales**
Use of acrylic paints and associated mediums including painting on a variety of surfaces. Patterns are provided for student’s use. More advanced tote decorative art brush stroke techniques will be incorporated into a step-by-step method on specific projects. Includes marketing and pricing of products. Students will receive a supply list at the first class meeting.

**VOC ESD15 — Jewelry/Lapidary Production Design**
Jewelry making and stone cutting/polishing, lapidary work. Includes appropriate maintenance of equipment and workshop safety. Includes outings to jewelry suppliers, shows and rock hunting trips.

**PAED CHLD1 — Parent Participation Pre-School**
Children's developmental stages and parenting skills through participation in discussions and classroom activities. Parents attend with their children, ages 2-5. Children participate in structured activities in preparation for future educational experiences.

**VOC ADJ01 — The Administration of Justice System**
History and philosophy of the justice system, subsystems, roles, relationships and theories of crime causation and correction.

**VOC ADJ02 — Principles and Procedures of the Justice System**
Roles and responsibilities of each segment of the justice system; additional focus on relationships between system segments and sub-system procedures from initial incident to final disposition.

**VOC ADJ03 — Concepts of Criminal Law**
Provides an overview of California criminal law from the perspective of the law enforcement officer.

**VOC ADJ04 — Legal Aspects of Evidence**
Introduction to criminal evidence, including admissibility, witness competency, privileged communication, hearsay and collection and preservation of evidence.

**VOC ADJ05 — Community Relations**
A comprehensive exploration of community problems designed for individuals in public service with major emphasis on community-oriented policing. Reviews public service image, diversity issues, human relations and reactions, crisis areas and confrontations with the public.

**VOC ADJ06 — Concepts of Enforcement Services**
Responsibilities, techniques and methods of police patrol with emphasis on the basic knowledge required in handling common police occurrences.

**VOC ADJ07 — Concepts of Traffic Services**
A study of traffic management, collision reconstruction, collision factors including law violations and human factors, collision evidence, traffic enforcement techniques and specialization in traffic management. Emphasis is placed on service to the motoring public.

**VOC ADJ12 — 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 AGN12 — 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.
**Continuing Education**

**VOC AGL16 — Horse Production**
Selection, utilization, and management of the light horse emphasizing recreational aspects of the modern horse. Laboratory work includes actual experience in the care of horse and tack.

**VOC AGL17 — Sheep Production**
A study of the various types of sheep enterprises and the ways and means of entering them. Includes class, laboratory and project work concerning all phases of sheep management, sheep handling, feeding, shearing, breeding, lambing and marketing. Practical skills taught on the school farm and sheep farms in the area.

**VOC AGL18 — Horse Ranch Management**
Skills and knowledge to work on or manage a modern equine ranch, including management of the breeding farm, farm layout, estrous cycles, breeding problems and stallion care.

**VOC AGL19 — Horse Hoof Care**
Emphasizes proper horse hoof care; shoeing, trimming and disease recognition and control.

**VOC AGL20 — Horse Behavior and Training**
Breaking and starting young horses. Concentrates on halter training of foals, ground work on yearlings, and green-breaking two-year-olds and up. Includes lunging techniques, driving, and breaking to a saddle. Training in collection, turning, backing, loads, and trailer loading.

**VOC AGL30 — Beef Production**
Principles and practices in the selection and management of feeders, market and breeding beef cattle. Economics of production, utilization of farm-grown feeds, and feedlot operations will be stressed.

**VOC AGL34 — Livestock Judging and Selection**
Study of form and appearance of farm animals as related to their function. Includes judging of breeding and terminal livestock as well as carcass evaluation.

**VOC AGL96 — Animal Sanitation and Disease Control**
Prevention and control of infectious diseases affecting domestic animals, including basic disease concepts, transmissibility of infectious diseases, principles of sanitation and fundamentals of immunology.

**VOC AGL97 — Artificial Insemination of Livestock**
Theory and application of artificial insemination of livestock, including semen evaluation and processing. Pregnancy diagnosis will be covered as an aid to the inseminator.

**VOC AGR01 — Horticultural Science**
The basic horticulture skills and techniques for use in gardening, nursery, and landscape applications. Emphasis on propagation, cultural practices, and the study of plant relationships, structure, growth and development.

**VOC AGR02 — Plant Propagation/Greenhouse Management**
Plant propagation and production practices with emphasis on florists’ plants, woody-ornamentals and fruits. Commercial techniques include seed propagation, cuttings, grafting and budding, layering, fern sporing and division. Stresses greenhouse and other environmental structures for plant propagation and production.

**VOC AGR03 — Park Management**
Management and operation of municipal park departments. Includes the development of budgets, purchasing, park policies, planning and scheduling.

**VOC AGR05 — Park Facilities**
Management and operation of different types of park facilities. Includes the management of sports fields, recreation centers, campgrounds, aquatic facilities and golf courses.

**VOC AGR13 — Landscape Design**
Fundamentals and implementation of landscape design. Principles of design, the design process, drafting, graphics, site evaluation, landscaping materials, and plant usage. Projects emphasize residential and small commercial sites.

**VOC AGR15 — Interior Landscaping**
Design, Installation and maintenance practices used in interior landscaping. Includes identification, culture and care of plants suitable for interior use.

**VOC AGR24 — Integrated Pest Management**
Identifies common agricultural pests in Southern California and analyzes physical, biological and chemical pest control principles and practices. Stresses use, safety, equipment, laws, and regulations of pesticides.

**VOC AGR25 — Floral Design 1**
Application of principles in the art of floral design as to form, style and composition. Designing of floral arrangements, wreaths, sprays, baskets, bouquets, wedding flowers and corsages are included in the laboratory setting.

**VOC AGR26 — Floral Design 2**
Continued application of principles in the art of floral design. Contemporary design theory emphasizing creativity, self-expression and professional design situations.

**VOC AGR27 — Floral Design 3**
Advanced application of principles in the art of holiday designs, party and wedding designs, and sympathy designs. Florist management operations will be emphasized.

**VOC AGR28 — Ornamental Plants - Herbaceous**
Identification, growth habits, culture and ornamental use of landscape annuals, biennials, perennials, ferns, indoor plants, groundcovers and vines adapted to climates of California. Plants emphasized will come from the California Association of Nurseries and Garden Centers (CANGC) and California Landscape Contractors Association (CLCA) certification test plant lists.

**VOC AGR30 — Ornamental Plants - Trees and Woody Shrubs**
Identification, growth habits, culture and ornamental use of landscape trees and shrubs adapted to climates of California. Plants emphasized will come from the California Association of Nurseries and Garden Centers (CANGC) and California Landscape Contractors Association (CLCA) certification test plant lists.

**VOC AGR32 — Landscaping and Nursery Management**
Operation and management of wholesale and retail nurseries. Includes site location and layout of areas; greenhouse management; soil mixes and proper use of fertilizers, insecticides, fungicides, herbicides and growth regulators; irrigation; mechanization; financing; personnel management; retail displays, advertising and customer relationships; federal, state and local laws and regulations. Field trips are included.

**VOC AGR39 — Turf Grass Production and Management**
Introduction to cultivation, maintenance and management of turf grasses utilized for athletic fields, golf courses, parks, cemeteries, commercial and residential lawns. Identification, installation, cultural requirements and maintenance practices are emphasized.

**VOC AGR40 — Sports Turf Management**
Prepares students to work in the sports turf industry. Emphasizes turf cultural techniques used in sports turf management. Includes turf surfaces used on baseball, football, soccer, tennis, golf courses, driving ranges and other sports fields in both professional and amateur sports. Field trips are included.

**VOC AGR50 — Soils Science and Management**
Principles of proper soil management to optimize plant growth, including management of air, water, nutrients and organic matter. Physical and chemical properties of soil that govern soil reactions and interactions. Field trips are included.

**VOC AGR51 — Tractor and Landscape Equipment Operations**
Selection, operation, repair and maintenance of power equipment used in the landscape industry. Includes 2WD and 4WD tractors, slip loader, skid steer loader, backhoe, lawn mowers, edges, weed eaters, blower/vacuum, rototillers, chainsaws, spraying equipment and all-terrain vehicles. Laboratory includes actual hands-on applications of this equipment.
**VOC AGR52 — Hydraulics**  
Operation, maintenance and repair of hydraulic systems used on agriculture and industrial equipment. Emphasis: pumps, valves, cylinders, flow control, reservoirs, lines, motors and hydrosptic transmissions. Laboratory provides hands-on application of hydraulic systems.

**VOC AGR53 — Small Engine Repair I**  
Principles and repair of small engines used in landscape, industrial and agricultural applications. Includes repairs of lawnmowers, chainsaws, 2-cycle engine, 4-cycle engine, spraying equipment, all-terrain vehicles, and other related gas-powered equipment.

**VOC AGR55 — Diesel Engine Repair**  
Repair and maintenance of diesel engines used to power industrial, landscape and agricultural equipment. Students gain actual hands-on experience maintaining, servicing and repairing diesel engines.

**VOC AGR56 — Engine Diagnostics**  
Analysis and evaluation of tractor power failure. Students gain actual experience in the proper diagnostic procedures of power equipment. Service, maintenance and repair of tractor electrical systems: electrical wiring, voltage regulators, generators, alternators, switches, gauges, batteries and test equipment.

**VOC AGR57 — Power Train Repair**  
Service, maintenance and repair of power trains. Students gain experience with clutches, transmissions, differentials, power take-off units, and final drive used to transmit power on tractors and other outdoor power equipment.

**VOC AGR52 — 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 AGR53 — 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 AGR54 — 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, walks, planters, patios, lighting, barbecues, gazebos, decks, ponds, spas, fountains and pools. Students will gain hands-on experience in the laboratory activities.

**VOC AGR73 — Landscaping Laws, Contracting, and Estimating**  
Landcape 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 AGR74 — 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 AGR75 — Urban Arboriculture**  
Care and management of ornamental trees. Includes pruning techniques, fruit tree care, bracing, cabling, and pest control. Safe practices in the use of equipment including the use of ropes, chippers, boom trucks, chain saws, and identification and evaluation of common trees. Prepares students for the tree worker and arborist certification exams.

**VOC AGR76 — Aviculture - Cage and Aviary Birds**  
Inclueds information on psittacines, soft bills, finches, game birds, poultry and ornamental waterfowl.

**VOC AGR77 — Aviculture - Cage and Aviary Birds**  
Inclueds information on psittacines, soft bills, finches, game birds, poultry and ornamental waterfowl.

**VOC AGR78 — Aviculture - Cage and Aviary Birds**  
Inclueds information on psittacines, soft bills, finches, game birds, poultry and ornamental waterfowl.

**VOC AGR79 — Aviculture - Cage and Aviary Birds**  
Inclueds information on psittacines, soft bills, finches, game birds, poultry and ornamental waterfowl.

**VOC AGR80 — Aviculture - Cage and Aviary Birds**  
Inclueds information on psittacines, soft bills, finches, game birds, poultry and ornamental waterfowl.

**VOC AGR81 — Aviculture - Cage and Aviary Birds**  
Inclueds information on psittacines, soft bills, finches, game birds, poultry and ornamental waterfowl.

**VOC AGR82 — Aviculture - Cage and Aviary Birds**  
Inclueds information on psittacines, soft bills, finches, game birds, poultry and ornamental waterfowl.

**VOC AGR83 — Aviculture - Cage and Aviary Birds**  
Inclueds information on psittacines, soft bills, finches, game birds, poultry and ornamental waterfowl.

**VOC AGR84 — Aviculture - Cage and Aviary Birds**  
Inclueds information on psittacines, soft bills, finches, game birds, poultry and ornamental waterfowl.

**VOC AGR85 — Aviculture - Cage and Aviary Birds**  
Inclueds information on psittacines, soft bills, finches, game birds, poultry and ornamental waterfowl.

**VOC AGR86 — Aviculture - Cage and Aviary Birds**  
Inclueds information on psittacines, soft bills, finches, game birds, poultry and ornamental waterfowl.

**VOC AGR87 — Aviculture - Cage and Aviary Birds**  
Inclueds information on psittacines, soft bills, finches, game birds, poultry and ornamental waterfowl.

**VOC AGR88 — Aviculture - Cage and Aviary Birds**  
Inclueds information on psittacines, soft bills, finches, game birds, poultry and ornamental waterfowl.

**VOC AGR89 — Aviculture - Cage and Aviary Birds**  
Inclueds information on psittacines, soft bills, finches, game birds, poultry and ornamental waterfowl.

**VOC AGR90 — Aviculture - Cage and Aviary Birds**  
Inclueds information on psittacines, soft bills, finches, game birds, poultry and ornamental waterfowl.

**VOC AGR91 — Aviculture - Cage and Aviary Birds**  
Inclueds information on psittacines, soft bills, finches, game birds, poultry and ornamental waterfowl.

**VOC AGR92 — Aviculture - Cage and Aviary Birds**  
Inclueds information on psittacines, soft bills, finches, game birds, poultry and ornamental waterfowl.

**VOC AGR93 — Aviculture - Cage and Aviary Birds**  
Inclueds information on psittacines, soft bills, finches, game birds, poultry and ornamental waterfowl.

**VOC AGR94 — Aviculture - Cage and Aviary Birds**  
Inclueds information on psittacines, soft bills, finches, game birds, poultry and ornamental waterfowl.

**VOC AGR95 — Aviculture - Cage and Aviary Birds**  
Inclueds information on psittacines, soft bills, finches, game birds, poultry and ornamental waterfowl.

**VOC AGR96 — Aviculture - Cage and Aviary Birds**  
Inclueds information on psittacines, soft bills, finches, game birds, poultry and ornamental waterfowl.

**VOC AGR97 — Aviculture - Cage and Aviary Birds**  
Inclueds information on psittacines, soft bills, finches, game birds, poultry and ornamental waterfowl.

**VOC AGR98 — Aviculture - Cage and Aviary Birds**  
Inclueds information on psittacines, soft bills, finches, game birds, poultry and ornamental waterfowl.

**VOC AGR99 — Aviculture - Cage and Aviary Birds**  
Inclueds information on psittacines, soft bills, finches, game birds, poultry and ornamental waterfowl.

**VOC AGR100 — Aviculture - Cage and Aviary Birds**  
Inclueds information on psittacines, soft bills, finches, game birds, poultry and ornamental waterfowl.
Continuing Education

VOC BA53 — Ten Key Calculations
Operation of electronic calculators by the touch method to solve business and accounting problems. Focuses on the application of calculator features to specific business concepts including banking records, payroll, invoice pricing and inventory.

VOC BA68 — Business Mathematics
Reviews addition, subtraction, multiplication, division, decimals, percentages, fractions, sign numbers, equations and problem solving.

VOC BA70 — Payroll and Tax Accounting
Examines all areas of on-the-job payroll accounting. Surveys the various tax procedures required by the employer and employee in filing the correct forms for Social Security, federal and state income taxes and their reconciliation. Laws related to Worker’s Compensation, State Disability Benefit Laws and Fair Employment Practices are discussed.

VOC BA71 — Financial Planning
Personal financial planning for students who wish to understand their own finances or assist others in money management. Topics include income taxes, consumer credit, budgeting home ownership, banking functions, insurance, retirement planning investing and time value of money.

VOC BA72 — Bookkeeping - Accounting
Fundamental bookkeeping and accounting principles including the accounting cycle for service and merchandising companies, cash management, payroll and special journals. Computerized simulations and completion of a practice set are required.

VOC BA75 — Using Microcomputers in Financial Accounting
Application of basic accounting concepts utilizing ledger software program. Hands-on use of a microcomputer to process accounting transactions, prepare statements and reports, and complete accounting cycle tasks. Completion of a computerized accounting practice set will be required.

VOC BA76 — Using Microcomputers in Managerial Accounting
Analyze financial data and prepare managerial accounting reports using Excel software. Development of “what-if” formulas to be used as an aid in decision-making. Manufacturing and consolidation worksheets, financial statement analysis, and statement of cash flows.

VOC BM10 — Principles of Continuous Quality Improvement
History and evolution of thought in Continuous Quality Improvement, including the theories and methods of Deming, Juran and Crosby. The quality management process and tools for the continuous improvement of quality are presented. Relevant case studies are included.

VOC BM12 — Continuous Quality Improvement Team Building
Advisory Prerequisite: VOC BM 10
Provides comprehensive instruction in building and using Continuous Quality Improvement project teams including selection of team members and evaluation of team performance. Students completing the course will be qualified to participate as members of Continuous Quality Improvement teams, create and evaluate problem solutions applying tools for improvement planning and team decision making, and build an effective improvement plan.

VOC BM20 — Principles of Business
Overview of business and its functions, background, development, organization and opportunities. Business terms, current trends, methods, contemporary and future problems, and current business practices are covered.

VOC BM25 — Principles of E-Commerce
A hands-on course focusing on learning the principles of E-commerce through the use of the internet. Students study the economic importance of E-commerce domestically and internationally. Includes uses of the internet, consumer buying, retail and business purchases, internet marketing, digital advertising, global E-commerce and business Web sites.

VOC BM51 — Principles of International Business
An overview of the rapidly changing international business environment, designed to provide a global perspective. Introduces global viewpoints across the full spectrum of business functions, including but not limited to: accounting, finance, human resources, management, operations, production, purchasing and strategic planning.

VOC BM52 — Principles of Exporting and Importing
Acquaints the student with the vocabulary, acronyms and the basic information needed for an understanding of and participating in the exporting and importing of goods and services.

VOC BM60 — Human Relations in Business
Behavior, personality, self-management, self-development, and elementary business psychology as an aid to furthering the student’s business advancement and lifelong learning. Class discussions focus on the student’s understanding of intrapersonal and interpersonal effectiveness with emphasis on communications, motivation, leadership and other related areas.

VOC BM61 — Business Organization and Management
Functions of management, theories of decision making and problem solving, and methods used by the manager to achieve organizational goals. Various theories of management, lines of authority, functions of departments, and the importance of policies, procedures, and controls are discussed.

VOC BM62 — Human Resource Management
Direction of people including guidance, control, supervisory problems, training, job analysis, interviewing, testing, rating and other functions involving human resources. Designed to improve the overall understanding of the relationship between the individual and the business organization.

VOC BM66 — Small Business Management
Practical problems encountered in operating and maintaining a small business enterprise: initiating the business, financial and administrative control, legal and government relationships and other related considerations.

VOC BM85 — Business English
Skills and techniques of English, as applied to business situations. Emphasis on effective paragraphs and memos.

VOC BM86 — Business Vocabulary
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 BO05 — Business English
Skills and techniques of English, as applied to business situations. Emphasis on effective paragraphs and memos.

VOC BO25 — Business Communications
Written communications including letters and memos meeting a variety of situations in the business environment. Includes writing of good news, bad news, sales, claims and persuasive correspondence; letters and resumes appropriate to job seeking and application; and practicing oral skills as applied to job interviews and business reports.

VOC BO26 — Oral Communications for Business
Designed to help business people communicate more effectively in spoken communication situations such as training sessions, presentations, and professional discussions.

VOC BO96 — Spelling and Vocabulary for Success
Advisory Prerequisite: VOC BO05
Learn to spell and define troublesome words. Improve basic spelling and vocabulary for use in various businesses. Improves vocabulary to spelling and dictionary; word division; adding suffixes and prefixes; synonyms; computer-related vocabulary; and business vocabulary.

VOC BO96A — Business Vocabulary
Develops a broad word command of new and specialized business vocabulary for use in various businesses. Improves vocabulary to enhance written and oral communication.

VOC BSR52 — Real Estate Practice
Office procedures and practices in listings, advertising, prospecting, financing, exchanges, property management, salesmanship, land utilization and public relations. A course in real estate practice must be completed within 18 months of licensure.
### VOC BS35 — Professional Selling
Principles of selling and the role of a salesperson in the marketing process. Includes characteristics and skills necessary for a successful salesperson, techniques for prospecting and/or qualifying buyers, buyer behavior and critical steps in the selling process. Students develop and offer a sales presentation for a selected product, service or concept.

### VOC BS36 — Principles of Marketing
Organization and function of the system of distributing goods and services from the point of production to the consumer. Preparation of a marketing plan using product, distribution, promotional and pricing strategies.

### VOC BS50 — Retail Store Management and Merchandising
Principles and practices used in the management and merchandising of retail stores. Includes all aspects of the critical buying function, merchandising, promotional techniques, site selection, layout, staffing, market positioning and customer service.

### VOC BS70 — International Marketing Concepts
Factors unique to foreign economics, cultural environments, political/legal problems, marketing intelligence procedures, international product policy, distribution and market channels, promotion and pricing decisions.

### VOC BS85 — Special Issues in Marketing
Provides marketing majors with a forum to gain knowledge, develop techniques, problem-solve and implement actual business marketing plan. Special emphasis will be placed on the particular project of the actual business used as the class project.

### VOC CB15 — Microcomputer Applications
Introduction to the personal computer, including terminology and basic computer operations in a Windows environment. Instruction is hands-on. Note: Students may take this class only 2 times consecutively. Registration is first-come, first-served. Students must register in person and may register for only one class per site.

### VOC CPBC3 — Basic Computing Level 3
Prerequisite: VOC CP-BC2 Basic Computing Level 2
Designed to increase word processing skills through creative projects which introduce computer graphics. Students will further their understanding of proper computer care and maintenance.

### VOC CPCC — Creative Computing
Develops creative skills in utilizing graphic designs for projects such as business cards, letterhead, labels, flyers, posters, greeting cards and computer-generated fabric designs. Proper marketing skills will also be discussed.

### VOC CFCL — Computer Laboratory
A lab study program designed to complement the lecture materials presented in computer program instructional courses.

### VOC CPNET — Internet Research — An Introduction
Provides an introduction to the use of the Internet. Note: Registration is first-come, first-served. Students must register in person and may register for only one class per site.

### VOC CP01 — Computer Keyboarding
Basic alpha/numeric keyboarding skills on a personal computer; develops a straight-copy rate of 25 to 40 gross words a minute with a predetermined error limit; includes keyboarding of letters, tables and manuscripts.

### VOC CP01A — Computer Keyboarding
Develops basic alpha/numeric keyboarding skills on a personal computer; develops a straight-copy rate of 25 to 30 gross words a minute with a predetermined error limit.

### VOC CP01B — Computer Keyboarding
Develops a straight-copy rate of 25 to 40 gross words a minute with a predetermined error limit and includes keyboarding of letters, tables, and manuscripts.

### VOC CP02 — Intermediate Computer Keyboarding
Develops computer keyboarding speed and accuracy with a proficiency standard upon completion of 35-55 gross words a minute with a predetermined error limit. Using word processing software, extensive instruction given for formatting of letters, memos, reports, tables and other related business documents.

### VOC CP02 — Operating the Macintosh Computer
Basic skills and in-depth practice operating the Apple Macintosh computer. Includes introduction to the operating system, paint, draw, word-processing, database, spreadsheet, and multimedia applications.

### VOC CP10 — Desktop Presentations Using PowerPoint
Use PowerPoint to plan, design, and produce effective presentations. Includes creating charts, diagrams, and storyboards; developing appropriate text content; adding sound, animation, and movies. Students who repeat this course will improve skills through further instruction and practice.
Continuing Education

**VOC CP60 — Desktop Publishing With InDesign or Pagemaker**
Using Pagemaker or InDesign desktop publishing software to integrate text and graphics for designing, editing, and producing high-quality business publications.

**VOC CP62 — Desktop Publishing With QuarkXpress**
Using QuarkXpress desktop publishing software on a microcomputer to integrate text and graphics for designing, editing, and producing high-quality business publications.

**VOC CP63 — Adobe Illustrator for Desktop Publishers**
Using Adobe Illustrator on a microcomputer to design and produce graphic images that can be used independently or incorporated into a page layout or presentation program.

**VOC CP64 — Desktop Publishing Seminar**
Overview and basic instruction using one of the most popular presentation software packages. Recommended for all students who need to know how to create presentations. Not recommended for Office perspective. Students will learn to modify images that can be used independently or incorporated into a page layout or presentation program.

**VOC CP65 — Modifying Images for Desktop Publishing**
Using Adobe Photoshop on a microcomputer as applied from the office perspective. Students will learn to modify images that can be used independently or incorporated into a page layout or presentation program.

**VOC CP66 — Transcription Techniques**
Develops the language competencies and formatting knowledge required to produce acceptable business documents; emphasizes punctuation, number usage, proofreading, spelling, and word division; and reinforces them through a series of sentence applications, paragraphs and business documents.

**VOC CP150 — Basic PowerPoint**
Overview and basic instruction using one of the most popular presentation software packages. Recommended for all students who need to know how to create presentations. Not recommended for Office Technology majors.

**OCCUPATIONAL — COMPUTER TECHNOLOGY**

**VOC CNT50 — PC Servicing**
PC and peripheral servicing techniques, preventative maintenance, hardware configurations, software configurations, software diagnostics, and the use of test equipment.

**VOC CNT52 — PC Operating Systems**
Current operating systems required for A+ and Network+ Certification and general computer servicing. Topics include: identification of major components, installation, configuration, upgrading and troubleshooting.

**VOC CNT54 — PC Troubleshooting**
Advanced microcomputer servicing. Includes: isolating, identifying, and repairing specific problems in the computer environment at the hardware level. Prepares students for the A+ Certification Exam.

**VOC CNT56 — Home Theater, Home Integration and Home Security Systems**
Home theater, home integration, and other home management systems. Emphasis on home theater, home management PLCs, security hardware and programming and the installation and servicing of such systems. Prepares the student for the California State Contractors C-7 voltage systems license.

**VOC CNT60 — A+ Certification Preparation**
Prepares the student and qualified computer technician for the A+ certification examination. All aspects of the Core and OS test modules will be stressed through both lecture review and test simulation software.

**VOC CNT62 — Network+ Certification Preparation**
Prepares the student and/or A+ certified technician for the Network+ Certification Examination. Individuals preparing for a job in the computer networking industry or who wish to become Network+ certified will find this course invaluable.

**VOC CRS25 — Probation and Parole**
Legal and due process rights for inmates. Inmate rights vs. needs of society. State, federal and appellate court decisions.

**VOC CRS20 — Correctional Law**
Legal and due process rights for inmates. Inmate rights vs. needs of society. State, federal and appellate court decisions.

**VOC CRS40 — Crime and Delinquency**
Overview of the field of corrections: county jail, probation, the California Youth Authority and the Department of Corrections as a member of the Criminal Justice System. Includes philosophy, past and the present practices and the criminal justice and correctional processes.

**VOC CRS45 — The Violent Offender**
Criminal behavior and types of crime and effects on society and victims. Stresses predicting future behavior and crime prevention. Emphasizes classifications of the offender and the victim.

**VOC CRS50 — Introduction to Correctional Science**
Overview of the field of corrections: county jail, probation, the California Youth Authority and the Department of Corrections as a member of the Criminal Justice System. Includes philosophy, past and the present practices and the criminal justice and correctional processes.

**VOC CRS55 — Interviewing and Counseling in Corrections**
Techniques of interviewing and counseling in the field of corrections with emphasis on practical application. Needs of the client and agency will be stressed.

**VOC CRS45 — The Violent Offender**
Violent crimes of felony assault, robbery, rape, the various types of homicide, and the characteristics of both the offender and the victim.

**OCCUPATIONAL — ELECTRONICS**

**VOC EL10 — Introduction to Mechatronics**
An introduction to the field of mechatronics, a combination of conventional electronics technology with mechanical and computer technology. Special emphasis is on robotics. Hands-on activities include the building of a robot.

**VOC EL11 — Technical Applications in Microcomputers**
Use of the personal computer (PC) in electronics for technically related applications. Includes word processing, spreadsheet, database, computer presentation methods, e-mail and job searches. Students who repeat this course will improve skills through further instruction and practice.

**VOC EL12 — Computer Simulation and Troubleshooting**
Use of the personal computer for simulation and troubleshooting of both analog and digital electronic circuits. Circuit analysis, voltage, current, substitution, and fault diagnostics will be done with the emphasis on "Electronics Workbench/Multisim" software. Students who repeat this course will improve skills through further instruction and practice.

**VOC EL50A — Electronics Theory**
Corequisite: VOC EL50A.
DC circuit theory covering resistive circuits, basic components, Ohm’s Law, Kirchoff’s Law, and network theorems. (Students seeking a survey course in electronics could take ELEC 90, Survey of Electronics, rather than ELEC 50A or 50B.)

**VOC EL50B — Electronics Theory**
Corequisite: VOC EL50BL.
AC circuit theory covering inductors, capacitors, impedance, filters, decibels, and resonance. Analysis involves the use of complex numbers. Stresses passive components.

**VOC EL51 — Electronic Devices Theory**
Solid-state devices and circuits, including BJT and FET transistors, rectifier diodes, op-amps, voltage regulators, oscillators, and timers. Emphasizes configurations, classes, load lines, characteristics curves, gain, troubleshooting, and frequency response.
VOC EL53 — Communications Circuits Theory
Analog and digital communication circuits theory. Emphasizes analog and digital modulation principles in AM, FM, SSB, PLL, FDM, TDM, modems, fiber optics, and telecommunications circuits.

VOC EL54A — Industrial Circuits Theory
Industrial electronic components and basic control circuits. Includes time delay controls, solid-state controls, relays, opto devices, DC motor control, transducers, SCR, and UUT devices.

VOC EL54B — Industrial Electronic Systems
Expands on circuit theory and demonstrates systems application of industrial electronics including robotics, industrial production, automation, programmable and motor controllers. Emphasis is on programmable logic controllers.

VOC EL55 — Microwave Communications - Lecture
Microwave components, circuit theory, and their applications with emphasis on satellite technology. Stresses Gunn diode oscillators, transmission lines, waveguides, Smith Charts, components, amplification, frequency analysis, and measurement techniques.

VOC EL56 — Digital Electronics - Lecture
Combinational and sequential logic circuits emphasizing number systems, binary math, basic gates, Boolean algebra, Karnaugh maps, flip-flops, counters, and registers. Stresses design and troubleshooting techniques.

VOC EL61 — Electronic Assembly and Fabrication
Assembly and fabrication techniques in basic soldering, de-soldering and surface mount technology. Construction of coaxial and Category 5 cabling and connectors. Includes an overview of types of printed circuit board design. Students who repeat this course will improve skills through instruction and practice.

VOC EL62 — Advanced Surface Mount Assembly and Rework
Advanced course in assembly and repair (soldering) on surface mount assemblies. Prepares for the IPC surface mount assembly and rework certifications.

VOC EL74 — Microprocessor Systems
Emphasizes the software/hardware architecture for the typical microprocessor environment. The software instruction set and the hardware interface design are covered for the microprocessor. Fundamentals and terms are covered for the personal computer (PC).

VOC EL76 — Radio/Telephone Communications
Prepares qualified electronic technicians for the F.C.C. and/or N.A.R.T.E. commercial license for technicians and engineers in the communications field. Students who repeat this course will improve skills through further instruction and practice.

VOC EL81 — Laboratory Studies in Electronics Technology
Extended laboratory experience supplementary to those available in the regular program. Allows the student to pursue more advanced and complex laboratory projects and experiments.

VOC EM65A — Mathematics of Electronics - DC
Mathematics of DC circuits analyzing passive circuits including Ohm’s Law, Kirchoff’s Law, voltage dividers, current dividers, and network theorems.

VOC EM65B — Mathematics of Electronics - AC
Mathematics of AC circuits analyzing passive circuits including resistance, reactance, impedance, resonance, and complex numbers (polar and rectangular).

VOC TCH60 — Customer Relations for the Technician
Customer relations (soft skills) for the technician, including benefits of knowing and using effective customer contact tools, proper customer interactions, ethics and maintaining customer satisfaction.

VOC 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 Theater, Home Integration & Home Security Systems
Home theater, home integration, and other home management systems. Emphasis on home theater, home management PLCs, security hardware and programming, and the installation and servicing of such systems. Prepares students for the California State Contractors C-7 low voltage systems license.

VOC EST62 — Electronic Troubleshooting - 1
Troubleshooting basic electronic circuits and systems to component level. Circuits include: power supplies, amplifiers, audio circuits, home theater audio (Dolby 5.1) and video circuits (analog TV).

VOC EST64 — Electronic Troubleshooting - 2
Troubleshooting advanced electronic video circuits and systems to component level. Includes digital TV and HDTV (plasma, LCD, DLP).

VOC EST70 — C-7 Low Voltage Systems License Preparation
Prepares students for the California State Contractors C-7 Low Voltage Systems license examination.

VOC EDT11 — Technical Engineering - Drawing 1
Basic skills for a solid foundation in the Engineering Drawing or Computer-Aided Design fields. Involves application, basic sketch, theories and design processes used in engineering and industrial drawings. Completion of a portfolio is a requirement of this course.

VOC EDT12 — Technical Engineering Drawing 2
Advanced applications, automated techniques, dimensioning, tolerancing, fasteners, piping, circuit board design, theory used in engineering and industrial drawings. Students will complete a set of working drawings in either manual or CAD for inclusion in a portfolio.

VOC EDT14 — Mechanical Design - Geometric Dimensioning and Tolerancing
Use symbols for tolerance of form and tolerance of position and drawing requirements with respect to actual function and relationship of part features. Studies of related terminology, power transmission, bearing and mechanical devices, related exercises including design layout, details and assembly drawings. Completion of a portfolio is a requirement of this course.

VOC EDT16 — Basic CAD and Computer Applications
Basic CAD (Computer Aided Design and Drafting) and computer application in architecture, engineering and related fields (including basic word processing, spreadsheet, CAD and presentation applications). Students who repeat this course will improve skills through further instruction and practice.

VOC EDT18 — Engineering CAD Applications
Intermediate CAD for engineering, explores the 2-D and 3-D environments, 3-D parametric solid modeling, file manipulation related to Windows platforms.
Continuing Education

VOC EDT24 — Engineering CAD 3-D Solids and Surfaces
Advanced engineering CAD for developing detailed working drawings in 3-D environments, incorporating 3-D parametric solid modeling, bill of materials, and surface development. Students who repeat this course will improve proficiency and skill levels.

VOC EDT26 — Civil Engineering Technology and CAD
Theory of civil engineering projects with hands-on instruction in civil drawings and Computer Aided Drafting and Design (CAD) applications. Layout, topography maps, grading plans, sections, street improvements, and interpretation of surveyor’s data are covered. Set of CAD drawings produced for a final portfolio.

VOC FSH08 — Introduction to Fashion
Examines scope of the fashion industry from concept to consumer: industry background and technology. Includes design, manufacturing, distribution, sales and promotion with emphasis on career opportunities and qualifications.

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
Development of a basic understanding of industry standard apparel construction techniques using a variety of machines and equipment. Included are marker preparation, commercial patterns, basic block fusing, and garment construction of slim skirt/pants, dress/shirt, and knit “T” shirt.

VOC FSH12 — Clothing Construction 2
Industry-quick alternatives to traditional construction and tailoring techniques, using overlock and single needle machines. Hands-on experience using woven fabrics for tailored clothing and novelty knits.

VOC FSH15 — Fashion Strategies
An investigative overview of sociological, psychological, cultural, and fashion industry influences on clothing selection. The elements and principles of design and their impact on dress will be explored.

VOC FSH17 — Textiles
Examines the manufacturing of textiles/fabrics and factors that determine the suitability for end use. Topics covered include natural and synthetic fibers, yarns, fabric construction, dyes, finishes, legislation and care. Emphasis is placed on selection criteria for textile product design and recent developments in the textile field.

VOC FSH20 — Illustration for Fashion and Costume Design
Drawing techniques for fashion design and theatrical costume design. Application of the basic techniques used in drawing a well-proportioned male and female figure and in rendering garment flats using texture, fabric and design detail. Students will explore a variety of mediums.

VOC FSH21 — Patternmaking 1
Theory and application of basic flat patternmaking techniques to create garment designs using industry standards. By means of dart and seam manipulation, slopers will be created, constructed and fitted.

VOC FSH22 — Fashion Design By Draping
Three-dimensional dress design through draping fabrics directly to a dress form to create original designs or to interpret fashion illustrations.

VOC FSH23 — Patternmaking 2
Intermediate pattern drafting and flat patternmaking, with the introduction to the sizing of patterns/grading. Development of patternmaking skills to include two-way stretch knits, swimwear, and complex construction. Students apply commercial manufacturing standards in producing size ranges for misses’ and women’s wear, to include skirts, pants, bodices, sleeves and collars.

VOC FSH24 — Fashion Patternmaking by Computer
Applications of Computer Aided Design (CAD) patternmaking and grading for the fashion industry. Exploration of drafting techniques, pattern development, flat pattern manipulation and the sizing/grading of patterns.

VOC FSH25 — Fashion Computer-Assisted Drawing
Drawing production flats, colorization and scanning images using computer as a drafting tool. Exploration of popular computer techniques and methods suitable for use in apparel industry. Concentration on Adobe Illustrator and Adobe Photoshop.

VOC FSH26 — Fashion Design and Product Development I
Overview of the global environment for product development for fashion. Applies the concepts and methods by which retailers create special store-branded merchandise for targeted customer segments. Students will develop financial and design goals, create product concept and line-boards, and evaluate the aesthetic and commercial results.

VOC FSH30 — Fashion Design and Product Development II
Intermediate fashion students will create and maintain a personal design sketchbook and work with the basic categories of swim wear, active wear, children’s and junior clothing. Industrial techniques of drawing production flats and design room sketches are taught in addition to the full fashion figure. Projects will include creation of lines including production flats, textile selection, cost sheets, full-color illustrations and full scale patterns.

VOC FSH32 — Fashion Design and Product Development III
Advanced fashion design and product development emphasizing, in portfolio format, a minimum of three lines with production flats, scale patterns, pattern charts, cost sheets and sample garments. A design sketchbook will be maintained. Includes resume preparation and job search appropriate for the fashion design industry.

VOC FSH62 — 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 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 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 HLT10

CONTINUING EDUCATION
VOC HTH04 — Acute Care Nursing Assistant
This course will enhance the existing skills of the CNA and provide the knowledge and job skills to work in various departments of acute care hospitals including med-surgical, obstetrics and pediatrics.
Prerequisites:
• Completion of CNA course and successful pass on CNA certification exam
• Current American Heart Association BLS for Health Care Providers card (must be valid for course duration)
• Completed Technology and Health Division Student Medical History and Physical exam form within the last 3 months
• Current Live scan fingerprint documentation.
• Valid identification (CA driver’s license or CA ID card) and Social Security card

VOC HTH05 — Health Careers Resource Center
Provides health occupational students with instructional media and equipment to practice and improve nursing and other health occupation competencies.

VOC HTH12 — Medical Terminology
Presents a study of the use and meaning of basic medical terminology. A programmed learning, word building system will be used to learn word parts that are used to construct or analyze new terms. Emphasis is placed on spelling, definition, usage and pronunciation. Abbreviations will be introduced as related terms are presented. Special emphasis will be placed on actual case diagnoses, treatments and medical interventions.

VOC HTH13 — Interpreting in Health Care 1
Skills necessary for effective language interpretation in health care settings; emphasis on the roles and responsibilities of a health care interpreter, basic knowledge of common medical conditions, treatments and procedures, insight in language and cultural nuances for specific interpretation.

VOC HTH14 — Interpreting in Health Care 2
Further enhancement of interpreting skills learned in VOC HTH13 covering specialized health care service areas such as genetics, mental health, and death and dying. Emphasis on the development of cultural competency in the community and workplace and careers in interpretation.

VOC HTH15 — Externship in Health Care Interpreting
Corequisite: VOC HTH12
Healthcare Interpreting Seminar facilitating linguistic and cultural communication between client and health care providers.

VOC HTH16 — Geriatric Resource Specialist
Prepares the participant to utilize available resources for older adults on a national and local basis. Identification of older adults’ needs; development of action plans to access appropriate services.

VOC HTH18 — In-Home Care of Alzheimer’s and Dementia Clients
Information and educational activities with techniques to enhance one’s ability to work with Alzheimer’s/Dementia consumers, with an emphasis on effective communication skills and appropriate activities when working with consumers and delivering direct care.

VOC HTH20 — Health Care Interpreter Seminar
Principles, issues, concepts, and skills related to the role of the Health Care Interpreter in facilitating linguistic and cultural communications through the externship field experience.

VOC RDTE — Intravenous Therapy for Radiologic Technology
This course prepares the Radiologic Technologist student to perform venipuncture in an upper extremity to administer contrast materials under the general supervision of a licensed physician and surgeon. Principles and techniques of venipuncture will be covered including: anatomy and physiology of sites, instruments, I.V. solutions, equipment, puncture techniques, hazards, complications, emergency care, post puncture care, Procedure practice and safe competency evaluation will be performed on training aids under supervision.

VOC HRM51 — Introduction to Hospitality Management
Brief review of the historical development of the hospitality industry; social and economic influences on the current leisure industry structures. Career opportunities at various levels in hotels, restaurants, food service institutions and private clubs/resorts. Education and experience requirements, personal qualifications, job responsibilities, job procurement and future opportunities.

VOC HRM52 — Food Safety/Sanitation
Basic principles of sanitation and safety in the food service industry. Emphasis on the role of management in design, implementation and training to establish an effective Hazard Analysis Critical Control point (HACCP) system. Students will have the opportunity to earn the National Restaurant Association’s ServSafe Certificate upon completion of this course.

VOC HRM53 — Dining Room Service Management
Skills and knowledge needed for all aspects of dining room service. Exploration of the five different service styles and their relationship to various environments. Table setting styles, buffet set-ups, wine and beverage service, and service as a sales tool are covered. Safety of both customer and staff are discussed.

VOC HRM54 — Commercial Food Preparation
Basic principles of preparing foods for commercial operations; the use and identification of commercial tools and equipment; extending recipes; choosing the proper food grade; evaluation of food products and equipment usage.

VOC HRM55 — Management of Hospitality Personnel and Operations
Management skills course for students pursuing a career in supervision within the restaurant/hospitality industry. Application of basic management concepts and techniques necessary to achieve objectives in the management of operations and human resources in restaurant and hospitality businesses including analysis of hospitality workplace; the manager’s responsibilities in training, coaching and performance appraisal of employees; decision making, leadership and planning.

VOC HRM56 — Management of Hospitality Personnel and Operations
Continuing Education
VOC HRM57 — Restaurant Cost Control
Methods for controlling resources within the hospitality occupation to maximize profits without compromising products. Discusses controls in front of the house, back of the house, purchasing and receiving.

VOC HRM58 — Fast Food Service Management
Basic principles of managing a fast food operation. Comparison with conventional restaurants in pricing, labor needs and facilities. Developing and marketing a positive company image. Practical and legal aspects of franchising versus single ownership. Sanitation and cost controls.

VOC HRM60 — Purchasing for the Restaurant Industry
Basic principles of purchasing for the food service industry. Ordering, receiving, storage, characteristics of products and grade selection for different situations are emphasized. Choosing the best supplier, negotiating the best terms and writing product specifications are covered.

VOC HRM61 — Menu Planning
Menu development for all facets of the food service industry including retail and contract operations; emphasis on the economics of the menu with regard to limitations of the facility and staff, pricing and menu design relative to the economy and culture of the target area. Specialty menus such as ethnic, fast food, catering and various contract situations are included.

VOC HRM62 — Catering
Comprehensive exploration of the catering business with in-depth study of organizing and creating both on-premise and off-premise events. Marketing and working with clients to combine menu with price. Contracting outside vendors, problem solving and avoiding common problems before they occur.

VOC HRM64 — Hospitality Financial Accounting
Introduction to financial accounting specifically for the hospitality business. Emphasis is on tailoring the Uniform System of Accounting to hotels, restaurants, clubs and other food service operations.

VOC HRM66 — Hospitality Law
Basic principles of contracts, liability and labor as they apply specifically to the hospitality industry. Students will discuss previous cases and decide the fates of fictional litigations as a preventive approach to problems that can occur.
Continuing Education

**OCCUPATIONAL — INTERIOR DESIGN**

**VOC HRM70 — Introduction to Lodging**
Introduction to the basics of the lodging industry. Acquaints students with front office operations, accounting, guest service, housekeeping and food service. Includes human resource management and property management. Enrollment in Work Experience in Restaurant/Food Service (RSTR 91, 92, 93 or 94) is needed for articulation to California Polytechnic State University.

**VOC ID100 — Fundamentals of Interior Design**
Application of design principles and elements in planning of total interior environments that meet individual, functional, legal and environmental needs. Selection of all materials and products used in interior environments will be emphasized for the functional aesthetic quality. (Recommend concurrent enrollment in ID 105.)

**OCCUPATIONAL — MANUFACTURING TECHNOLOGY**

**VOC MF11 — Mfg Processes 1**
Manual and computerized manufacturing, manual lathes and mills, tool nomenclature and Computerized Numerical Control (CNC) operations. Operation of CNC machines. Students who repeat this course will improve skills through further instruction and practice.

**VOC MF12 — Mfg Processes 2**
The study of manufacturing equipment and manufacturing processes. Theory and practice in milling operations, tooling setup, metallurgy, heat treatment, precision grinding, and basic tool design.

**VOC MF15 — AutoCAD 2D**
Development of two dimensional AutoCAD mechanical screen drawings, as related to Computer Integrated Manufacturing (CIM), and Computer Aided Machines (CAM). Completed drawings will be translated into DXF and/or IGES files and then transferred to various CAD/CAM systems.

**VOC MF17 — 3-D CAD for Mechanical Modeling**
Advisory Prerequisite: VOC CIM 15 or equivalent industrial experience. Development of three dimensional mechanical models using AutoCAD. Includes interaction with Computer Aided Machines (CAM) and Computer Integrated Manufacturing (CIM). Analysis and manipulation of mechanical solid models and industrial primitives as related to their interactions with CAM and CIM systems.

**VOC MF19 — Parametric Solid Modeling for Manufacturing**
Development of feature-based solid modeling on a computer using current industry software. Transfer of solid model to a CAM system for CNC code production. Includes production of a manufactured part using CNC mill.

**VOC MF25 — Advanced Parametric Solid Modeling for Desktop**
Advanced instruction in concepts, practice, and development of feature-based solid modeling using Autodesk Mechanical Desktop. Advanced features of solid modeling; global variables, 3-D helical paths generation, surface cut, table-driven parts, and advanced scene and assembly techniques. Students who repeat this course will improve skills by further instruction and practice.

**VOC MF27 — AutoDesk Inventor**
Advanced concepts, practice, and development of feature-based solid modeling using AutoDesk Inventor. Solid modeling parts creation using sketched, placed, and work features. Assembly techniques, working drawings, and the transfer of a solid model to a CAM system.

**VOC MF38 — MasterCAM 1**
Use MasterCAM software to create wire-frame part geometry, add tool paths and create CNC code for CNC mills and CNC lathes. Students who repeat this course will improve their skills through further instruction and practice.

**VOC MF38C — MasterCAM Solids**
Use MasterCAM software to design wire drawings, translate to solids drawings, and generate code from a solids creation to meet industrial standards. Students who repeat this course will improve skills through further instruction and practice.

**VOC MF38B — Advanced MasterCAM**
Use MasterCAM software to create wire-frame 2D/multi-axis part geometry, add tool paths, and create CNC code for CNC mills and CNC lathes. Students who repeat this course will improve their skills through further instruction and practice.

**VOC MF39 — SurfCAM 1**
SurfCAM software used to create part geometry from project drawings for two-axis milling and turning parts. Tool paths will be added and the completed file will be post-processed and downloaded to CNC machine. Students will be required to set up all cutting tools and machine the part. Students who repeat this course will improve their skills through further instruction and practice.

**VOC MF39B — SurfCAM 2**
Use SurfCAM software to create part geometry for three-axis milling and lathe parts from project drawings and CAD files. Tool paths will be added and the completed file will be post-processed and downloaded to CNC machine. Students will set up the required cutting tools and machine the part. Students who repeat this course will improve skills through further instruction and practice.

**VOC MF58 — Blueprint Reading for Manufacturing**
Blueprint reading as a means of interpreting and visualizing drawings used in manufacturing. Includes the basic print form, title block, notes, materials, machining specifications, application of principles to CNC, welding, and sheet metal. Students who repeat this course will improve skills through further instruction and practice.

**VOC MF70 — Technical Mathematics - Manufacturing Applications**
Applications of mathematical principles in manufacturing. Includes arithmetic calculations, measurement, use of formulas, geometry, and trigonometry. Students who repeat this course will improve skills through further instruction and practice.

**VOC MF85 — Manual CNN(COMPterized Numerical Control)**
Operations
Theory and practice in manually developing CNC programs. Methods of transmitting data to CNC machines and physical set-up and operations of CNC equipment. Students who repeat this course will improve skills through further instruction and practice.

**OCCUPATIONAL — PHOTOGRAPHY AND PHOTOGRAPHICS**

**VOC CPDI — Digital Photography for the Beginner**
Operation of digital cameras, image management and composition, development of research skills using the Internet, and imaging graphics software. A hands-on course which includes scheduled field trips.

**VOC GPR01 — Computer Graphics Lab**
Provides computer laboratory experience to supplement the regular program, and provides opportunities for students to pursue more advanced projects. Students who repeat this course will improve skills through further instruction and practice.

**VOC GPR10 — Photo Editing with Photoshop**
Basic techniques to adjust and modify photos using Photoshop software tools. Includes digital color theory and photo quality standards; practice photoscan reproduction, resolution and scaling, masking, layer editing and effects, filters, color correction and file formats; output for editing, restoring, and retouching.

**VOC GPR12 — Advanced Photoshop**
Advanced training in Photoshop editing, color, exposure, sharpness and contrast enhancement, layer and object masking, vector tools, image compositing and the uses of blended modes; design of realistic and imaginary photo illustrations using 8- and 16-bit high resolution images.
VOC GRP14 — Digital Color Management
Advanced techniques of digital photo color management systems and workflow. System color architectures, monitors, printers, proofers and other digital devices; spectrophotometer techniques; scripting Photoshop actions, using “digital raw” meta data to organize photo storage; advanced special editing techniques for 16-bit raw color and grayscale images.

VOC GRP16 — Digital Image Design
Basic digital image drawing techniques using Adobe Illustrator or Macromedia Freehand. Includes software tools, applying color, using layers, typography, measurement, and paper systems. Practice importing photo scans, creating layouts, layer animation, choosing fonts, special effects, export file formats, and output in a digital workflow.

VOC GRP18 — Advanced Image Design - 3D Modeling Techniques
Advanced digital image drawing emphasizing creation of photorealistic 3D models and environments. Principles of perspective, coordinate space, photographic lighting, object animation, photo and video texture mapping, and common techniques for rendering still or animated QuickTime image movies for digital compositing and post-production.

VOC GRP20 — Applying Photos and Images in Multimedia
Principles of digital storytelling, combining still photos, graphics images, type, video, and audio content output to digital CD or DVD media, video, or Web pages. Commonly used tools and techniques of Apple’s iPhoto, iMovie, iDVD, iLife, GarageBand, and QuickTime Pro multimedia software, Mac OS X features, and other multimedia software and hardware.

VOC GRP28 — Digital Portfolio
Preparation of a personal computer graphics portfolio containing key samples of work for presentation or career evaluation. The portfolio displays the learner’s skills mastery, knowledge, and capacities for communicating, synthesis and problem solving.

VOC GRP48 — Introduction to Digital Design Systems
Introduction to digital design systems as they relate to computer graphics. CPU type and speed, graphic accelerators, storage media, color space, input/output devices, and scanning devices will be emphasized. Software unique to digital design and file management techniques will also be presented.

VOC PHO01 — Laboratory Studies in Black & White Photography
Extended black and white laboratory experiences to supplement those available in the regular program. Provides students the opportunity to pursue more advanced projects and experiments.

VOC PHO02 — Laboratory Studies: Color Photography
Extended color laboratory experiences to supplement those available in the regular program. Provides students the opportunity to pursue more advanced projects and experiments. Students who repeat this course will improve skills through further instruction and practice.

VOC PHO04 — Digital Cameras and Composition
Use of digital cameras, lenses, filters, and exposure to compose quality photographs. Shooting assignments are given for analysis in class. Camera will be required after the second week.

VOC PHO10 — Basic Digital & Film Photography
The basic mechanical, optical and chemical principles of photography, including digital image systems. Laboratory experience involves problems related to camera and image output techniques.

VOC PHO11 — Advanced Professional Photography
Exploration of current professional techniques. Includes studio and field assignments related to problems encountered in advanced photography. Topics include but are not limited to: medium and large format cameras; studio product and portraiture; strobe and tungsten lighting; and computer basics for professional photographers.

VOC PHO12 — Photographic Alternatives
Explores the use of continuous tone and alternative black and white techniques and processes. Emphasis will be on solving photographic problems through the use of current techniques such as montage printing; Polaroid and xerographic applications, hand coloring, and emulsion coating (cyanotype, Luminous/LiquidLight) as well as other special techniques.

VOC PHO15 — History of Photography
Survey of the history of photography from circa 1839 to the present. An introduction to concepts of photographic representation and their impact on society.

VOC PHO16 — Fashion Photography
Illustrative, editorial and advertising fashion photography. Studio and location production in both black and white and color are emphasized. Aspects of business operation and working with clients are explored.

VOC PHO17 — Photomontage
Explores the application of the photosensitive materials, photochemicals and optics. The emphasis will be on the aesthetic and expressive uses to which these materials lend themselves. The student is expected to supply his/her own adjustable camera.

VOC PHO18 — Portraiture and Wedding Photography
Techniques and photographic procedures for taking informal, formal, environmental and group portraits. In-depth study and practice in professional wedding photography.

VOC PHO20 — Color Photography
An introduction to current methods of producing color media, color negatives, positive transparencies, and outputting color prints.

VOC PHO21 — Exploring Color Photography
Explores the application of color processes as they relate to commercial and artistic styles. Emphasis is on innovative use of color and contemporary techniques. Includes media manipulation and unique processing, coloring negatives, 8x10 Polaroid, digital imagery, specialized lighting, set building and quality control.

VOC PHO28 — Photography Portfolio Development
Development of photography portfolio either for job application or gallery exhibition purposes.

VOC PHO30 — Commercial & Illustrative Photography
Application of photographic principles to commercial and illustrative photography. Practical experience in studio product photography, illustration, fashion and architectural photography. Areas of promotion and pricing will be covered. Both black and white and color media will be used.

VOC CISCO — Computer Operations
Training in basic computer skills such as starting a computer, setting up user preferences, mounting disc drives and practicing basic software application programs including word processing, simple spreadsheets and typing programs.

VOC MFAR — Assembly Repair Skills
Training in assembly operations, machine and maintenance repair; service occupations such as janitorial services, grounds keeping, etc. Develop and practice assembly skills through simulated and real work situations.

VOC SL3 — Service Learning-Seminar in Community Involvement
Examines and profiles community needs through service learning. Explores and allows students to interface with various patient populations. Weekend and overnight labs to various areas within California maybe offered. Out-of-class projects required.

VOC S14 — Service Learning and Community Involvement
Examines and addresses community needs through service learning. Students directly interface with community populations to identify needs and implement activities. Permits exploration of service-oriented career opportunities through community service. Enriches personal and career development through understanding of civic and social issues.

VOC S15 — Occupations — Special Needs Population
Examines and profiles community health needs. Explores and addresses community needs through service learning. Permits exploration of career opportunities through community service. Enriches personal and career development through understanding of civic and social issues.
Continuing Education

**OCCUPATIONAL — STAINED GLASS PRODUCTION**

**VOC SGL1 — Beginning Stained Glass**
Basic steps of stained glass construction, both lead and copper-foil techniques. A supply list will be handed out at the first class meeting. Students are responsible for their own materials.

**VOC SGL2 — Advanced Stained Glass**
Advanced stained glass techniques will include the construction of windows, lampshades and/or specialized gift items. Approach to marketing and selling of items will be included. A supply list will be handed out at the first class meeting. Students are responsible for their own materials.

**OCCUPATIONAL — THEATER AND THEATER ARTS**

**VOC THR14 — Stagecraft**
Theory and practice of stage design and lighting. Practical work in scene design and construction and lighting layouts, with the opportunity to perform these tasks in actual theatre situations. By virtue of the wide range of productions staged by the department, students who repeat this course will increase their skills and proficiency.

**VOC THR15 — Play Rehearsal and Performance**
Participation under faculty supervision in the planning, preparation and presentation of college-sponsored dramatic presentations. Emphasis on acting with some technical theatre assignments. Students who repeat this course will improve skills through further instruction and practice.

**VOC THR16 — Theatrical Make-Up**
An introduction to the theory and practice of make-up for the stage. The student will gain practice in the design and application of straight, stylized character, and other make-up techniques.

**VOC THR18 — Technical Theater Practicum**
Participation in the technical preparation and operation of productions presented to the community. The student will be involved in one or more of the following areas: stage scenery construction, stage lighting set up, property construction, stage sound set up, costume construction and make-up. Crew assignments will be given to the student upon enrollment. The availability of assignments is contingent upon the requirements of the production. Students who repeat this course will improve skills through further instruction and practice.

**VOC THR19 — Theatrical Costuming**
Theatrical costuming design and construction. Includes the study of costume history, principles of costume design, fibers and textiles, basic costume construction and design rendering techniques. Costume crew assignments for major productions will provide practical instruction in actual performance demands on costumes and their proper maintenance. Class is suitable for people interested in costuming for theater, dance, film, television and reenactments.

**VOC THR60 — Children’s Theatre**
Theory and practice of children’s theater. Evaluates play production techniques and literature for an audience of children. Includes analysis of plays for children and actual experience in acting, and producing children’s plays for public presentation. Field trips are required.

**OCCUPATIONAL — WELDING**

**VOC WL30 — Metal Sculpture**
For students interested in art seeking the proper operation of welding processes related to the sculpting industry. Emphasizes the fundamentals of three-dimensional design. Includes demonstrations and exercises in welding as it relates to the art industry.

**VOC WL40 — Introduction to Welding**
Fundamentals of welding processes related to the areas of fabrication, construction, machine tool, aerospace and the transportation industries.

**VOC WL50 — Oxyacetylene Welding**
Oxyacetylene fusion welding, non-fusion welding and cutting. Develops understanding of and fundamental skills in modern welding practices.

**VOC WL51 — Basic Electric Arch Welding**

**VOC WL53A — Welding Metallurgy**
Designed for students seeking a career in welding and welding inspection. Covers structure of matter, chemical, physical and mechanical properties of metals, principles of alloying, solid state diffusion, plastic deformation and heat treatment.

**VOC WL60 — Print Reading and Computations for Welders**
Reading prints and performing computations for welding fabrication operations. Interpreting and visualizing prints, title blocks, welding symbols, specifications, notes, and bills of materials. Computations necessary to calculate materials, costs, sizes, and fractional, decimal and metric conversions.

**VOC WL70A — Beginning Arc Welding**
Develops manipulative skills and techniques for the beginning student welder on the shield metal arc (SMAW) and the flux cored arc (FCAW). All position welds with many varying thickness will be covered.

**VOC WL70B — Intermediate Arc Welding**
A continuation of Beginning Arc Welding (WELD 70A). Emphasis is on welding high alloy steel with both SMAW and FCAW processes in the vertical and overhead positions. Designed to refine previously acquired welding skills.

**VOC WL70C — Certification for Welders**
Study of building construction for the advanced arc welding student. Special emphasis will be placed on welding symbols and the American Welding Society’s (AWS) D1.1 and D1.3.

**VOC WL80 — Fabrication and Construction Welding**
Theory and practical applications of welding used in industry and construction. Designed to adapt and upgrade skills to industry standards. Includes project models such as ornamental iron gates and fences and material storage components.

**VOC WL81 — Pipe and Tube Welding**
Advanced course designed to enable students with “all positions” welding skills in SMAW to apply welding skills to the pipe welding industry. Welding processes will include SMAW, GRAW, GMAW, FCAW on a variety of materials and configurations on sub-critical and critical piping and tubing.

**VOC WL90A — Gas Tungsten Arc Welding**
Advanced level class in Gas Tungsten Arc Welding (GTAW, also known as TIG) of steel, aluminum, CRES and exotic metals. All position welds with many surfaces and transitions.

**VOC WL90B — Semiautomatic Arc Welding Process**
An integrated review of Semiautomatic Welding Processes including Gas Metal Arc Welding (GMAW), Flux Cored Arc Welding (FCAW), Submerged Arc Welding (SAW) with solid and tubular wires with and without gas shielding. All position welds with many varying thickness will be covered.

**VOC WL91 — Automotive Welding, Cutting and Modification**
Instruction in the art of welding and cutting on metals commonly used in the automotive industry. Gas Metal Arc (MIG), Gas Tungsten Arc (GTAW), Plasma Arc cutting and oxyfuel cutting and welding will be covered.

**OCCUPATIONAL — WOODWORKING**

**VOC WD01 — Woodworking - Beginning**
Designed for students with little or no wood-working experience. Includes use of hand tools and power woodworking equipment with an emphasis on safety.

**VOC WD02 — Intermediate Woodworking**
Prerequisite: VOC WOOD 01 or equivalent experience. Intermediate woodworking which includes design, cost analysis, craftsmanship and occupational opportunities in the field. Elementary joinery, adhesives, simple production techniques, and wood finishes will be covered.

**VOC WD03 — Cabinetmaking/Woodworking**
Students who wish to take this course must have completed a beginning woodworkng class. Project proposals are created by students in accordance with their background and interests. Includes recognition of wood varieties, their basic characteristics and applications.
College Policies and Notices

**COLLEGE POLICIES**

**Alcohol and Other Drugs**
The possession or consumption of alcoholic beverages or illegal drugs prior to, or during any College-sponsored activity, on or off-campus, by any person attending, regardless of age, is forbidden by State law.

The Federal government has mandated that as of October 1, 1990, there will be no drug usage by students, staff, or faculty on college campuses anywhere in the United States. Please see the latest Schedule of Classes for the College's Alcohol and Other Drugs Policy.

**Animals on Campus**
Board Policy does not allow for any animals on campus except as provided for by the California Penal Code, Section 365.5 (specially trained guide, signal, or service dogs). Leaving a pet in a parked vehicle, no matter what provisions are made for its safety, may constitute unnecessary suffering or cruelty which is a violation of California Penal Code 597.

**Campus Disturbances**
In accordance with California Penal Code (P.C. 626.6), the willful disturbance of classes, College activities, or procedures is a misdemeanor.

**Campus Hours**
The College offers instruction between the hours of 6:30 a.m. and 10:00 p.m., Monday through Sunday. Office hours vary depending on the services provided. Refer to the latest Schedule of Classes or call for specific office hours.

**Children on Campus**
While on the campus of Mt. San Antonio College, children under 12 years of age who are not approved for enrollment must be directly supervised at all times by a responsible adult. Such children shall not be left unattended in College buildings, outdoor areas, or in private automobiles.

**Classroom Visitors**
No person may be allowed to attend a regularly scheduled class unless officially registered for that class. Permission to visit a class must be secured from the professor. A visitor shall not attend class on a regular basis. Examples of visitors include: guest speakers, student friends, potential students, or minor children of officially registered students. Unauthorized visitors may be removed from the classroom by request of the Division Dean or designee, or other manager of the Instruction or Student Services Team.

**Dress Regulation**
Students are expected to dress in accordance with commonly accepted standards of appropriateness. It is mandatory that shoes be worn as general campus attire.

**Driving and Parking**
Users of Mt. San Antonio College campus roads and parking areas must observe and obey all traffic laws of the State of California and the College traffic and parking regulations adopted pursuant to Section 21113 of the California Vehicle Code and the Mt. San Antonio College Board of Trustees.

All four-wheeled vehicles parked in designated student lots MUST bear a valid parking permit for the semester enrolled. The Student Parking Permit is valid in designated student lots except in the spaces controlled by parking meters or reserved signage. Free 30-minute parking is available north of the Bookstore, west of the Administration Building, and south of the Performing Arts Center. Parking regulations are strictly ENFORCED during the Fall, and Spring semesters and summer and winter sessions from 7:00 a.m. to 10:00 p.m. Monday through Thursday, and Friday 7:00 a.m. to 4:00 p.m.

**Eye Protection**
Pursuant to the Education Code, the following regulation regarding eye protective devices shall be observed: Students, teachers, and visitors shall wear approved eye protective devices in all classes, shops, and laboratories when they are engaging in or observing the use of hazardous materials likely to cause injury to the eyes. Such eye protective devices shall meet the requirements of the American Standards Association Safety Code.

**Academic Honesty**
All members of the academic community have a responsibility to ensure that scholastic honesty is maintained. Faculty has the responsibility of planning and supervising all academic work in order to encourage honest and individual effort, and of taking appropriate action if instances of academic dishonesty are discovered.

Honesty is primarily the responsibility of each student. The College considers cheating to be a voluntary act for which there may be reason, but for which there is no acceptable excuse. It is important to understand that collaborative learning is considered cheating unless specifically allowed for by the professor.

**Cheating and Plagiarism**

Cheating
Professors have the responsibility of planning and supervising all academic work to encourage honest and individual effort, and of taking appropriate action if instances of academic dishonesty are discovered. However, honesty is primarily the responsibility of each student. The College considers cheating to be a voluntary act for which there may be reasons, but for which there is no acceptable excuse. It is important to understand that collaborative learning is considered cheating unless specifically allowed by the professor. The term “cheating” includes but is not limited to:

- Using unauthorized material or sources
- Changing an answer after work has been graded and presenting it as improperly graded
- Illegally accessing confidential information through a computer
- Taking an examination for another student or having another student take an examination for you
- Forging or altering registration or grade documents

The professor who determines that a student has cheated may give the student a failing grade for the assignment or for the course, or may drop the student from the course. Since the student has failed to abide by the standards of academic honesty, the professor has a right to give an “F” for the assignment or for the course even though the student may have successfully and, presumably, honestly passed the remaining portion of the assignment or course. If the professor issues a failing grade for the course or drops the student, the actions shall be reported to the Dean of Student Services, or Director of Student Life. An instructor may also recommend that appropriate action be taken under provisions of the Administrative Regulations and Procedures on Student Discipline.

**Plagiarism**

“Plagiarism is a direct violation of intellectual and academic honesty. Although it exists in many forms, all plagiarism refers to the same act: representing somebody else’s words or ideas as one’s own. The most extreme forms of plagiarism are the use of material authored by another person or obtained from a commercial source, and the use of passages copied word for word without acknowledgment. Paraphrasing an author’s idea or quoting even limited portions of his or her text without proper citation is also an act of plagiarism. Even putting someone else’s ideas into one’s own words without acknowledgment may be plagiarism. In none of its forms can plagiarism be tolerated in an academic community. It may constitute grounds for a failing grade, probation, suspension, or expulsion.”

“One distinctive mark of an educated person is the ability to use language correctly and effectively to express ideas. Faculty assign written work for the purpose of helping students achieve that mark. Each instructor will outline specific criteria, but all expect students to present work that represents the student’s understanding of the subject in the student’s own words. It is seldom expected that student papers will be based entirely or even primarily on original ideas or original research.”

“Therefore, to incorporate the concepts of others may be appropriate with proper acknowledgment of sources, and to quote others directly by means of quotation marks and acknowledgments, is proper. However, if a paper consists entirely of quotations and citations, the paper should be rewritten to show the student’s own
understanding and expressive ability. The purpose of the written assignment (i.e., development of communication and analytic skills) should be kept in mind as each paper is prepared. It should not be evaded through plagiarism.”

*Adopted, with permission of California State University, Los Angeles, from their policy printed in the 1987-88 General Catalog.

Non-Discrimination Policy
Mt. San Antonio College provides opportunities for the pursuit of excellence for all students and staff through its educational programs and services. The purpose of all programs, services, activities, conferences and college-endorsed competitions is to enrich the quality of human life. The College will provide open access to a college education and all support services without regard to sex, race, color, religious creed, national origin, ancestry, age over 40, marital status, physical or mental disability (including HIV & AIDS), sexual orientation, or Vietnam Era Veteran Status. The lack of English language skills will not be a barrier to admission. Policies and grievance procedures for unlawful discrimination and complaint procedures for sexual harassment for students and employees may be obtained by contacting the following individuals:

Trinda Hoxie, Director
Human Resources/Affirmative Action Officer
Human Resources Office
Building 4, Room 230, Ext. 4225

Audrey Yamagata-Noji, Vice President
Student Services
Student Services Center, Ext. 4505

Carolyn Keys, Dean of Student Services
Building 9C, Room 1A, Ext. 4525

Sexual Harassment & Sexual Violence
Sexual violence, including sexual assault, harassment, rape and stalking, are crimes that are not tolerated on this campus. Mt. San Antonio College has adopted Board policies and procedures to address sexual crimes, sanctions for offenders, and to outline access to treatment and general information for victims (Board Policy 3430, 3500, 3540). All applicable punishment, including criminal charges, disciplinary action, etc., shall be applied whether the violator is an employee, student or member of the general public.

Services available to help assure your safety include:

- **Campus Escorts** who are available during evening hours to assure your safety on campus and in parking lots. They are provided at your request, please call ext. 4233.
- Contact Student Life Office at ext. 4525 to report incidents.

- **Student Health Services** provides personal counseling and medical attention.

- **Blue emergency telephone** towers that are located throughout the campus and parking lots for you to access Public Safety immediately should you need assistance with any emergency occurrence.

- **Public Safety** can be reached by calling the campus number at (909) 594-5611, ext. 4555.

- **911 for any emergency. Be prepared to identify your exact location.**

For additional information, go to [www.mtac.edu/students](http://www.mtac.edu/students)

**Standards of Conduct**
Board Policy, Section 5500
Adopted 6/23/04

Copies of the Standard of Conduct Policy can be obtained in Building 9C.

The College President/CEO shall establish procedures for the imposition of discipline on students in accordance with the requirements due process of the federal and State law and regulations.

The procedures shall clearly define the conduct that is subject to discipline, and shall identify potential disciplinary actions, including but not limited to the removal, suspension, or expulsion of a student.

The Board shall consider any recommendation from the College President/CEO for expulsion. The Board shall consider an expulsion recommendation in closed session unless the student requests that the matter be considered in a public meeting. Final action by the Board on the expulsion shall be taken at a public meeting.

The procedures shall be made widely available to students through the College catalog and other means.

The following conduct shall constitute good cause for discipline, including but not limited to the removal, suspension or expulsion of a student:

1. Causing, attempting to cause, or threatening to cause physical injury to another person.
2. Possession, sale or otherwise furnishing any firearm, knife, explosive or other dangerous object, including but not limited to any facsimile firearm, knife or explosive, unless, in the case of possession of any object of this type, the student has obtained written permission to possess the item from a College employee, which is concurred with by the College President/CEO.
3. Unlawful possession, use, sale, offer to sell, or furnishing, or being under the influence of any controlled substance listed in Chapter 2 (commencing with Section 11053) of Division 10 of the California Health and Safety Code, an alcoholic beverage, or an intoxicant of any kind; or unlawful possession of, or offering, arranging or negotiating the sale of any drug paraphernalia, as defined in California Health and Safety Code Section 11014.5.
4. Committing or attempting to commit robbery or extortion.
5. Causing or attempting to cause damage to College property or to private property on campus.
6. Stealing or attempting to steal College property or private property on campus, or knowingly receiving stolen College property or private property on campus.
7. Willful or persistent smoking in any area where smoking has been prohibited by law or by regulation of the College.
8. Committing sexual harassment as defined by law or by College policies and procedures.
9. Engaging in harassing or discriminatory behavior based on national origin, religion, age, sex (gender), race, color, medical condition, ancestry, sexual orientation, marital status, physical or mental disability, or because a person is perceived to have one or more of the foregoing characteristics.
10. Willful misconduct that results in injury or death to a student or to College personnel or which results in cutting, defacing, or other injury to any real or personal property owned by the College or on campus.
11. Disruptive behavior, willful disobedience, habitual profanity or vulgarity, or the open and persistent defiance of the authority of, or persistent abuse of, College personnel.
12. Cheating, plagiarism (including plagiarism in a student publication), or engaging in other academic dishonesty.
13. Dishonesty, forgery, alteration or misuse of College documents, records or identification; or knowingly furnishing false information to the College.
14. Unauthorized entry upon or use of College facilities.
15. Lied, indecent or obscene conduct on College-owned or controlled property, or at College-sponsored or supervised functions.
16. Engaging in expression which is obscene, libelous or slanderous; or which so incites students as to create a clear and present danger of the commission of unlawful acts on College premises, or the violation of lawful College administrative procedures, or the substantial disruption of the orderly operation of the College.
17. Persistent, serious misconduct where other means of correction have failed to bring about proper conduct.
18. Unauthorized preparation, giving, selling, transfer, distribution, or publication, for any commercial purpose, of any contemporaneous recording of an academic presentation in a classroom or equivalent site of instruction, including but not limited to handwritten or typewritten class notes, except as permitted by any College policy or Administrative Procedure.
19. Harassment of students and/or College employees that creates an intimidating, hostile, or offensive environment.
College Policies and Notices

20. Violation of College rules and regulations including those concerning affiliate clubs and organizations, the use of College facilities, the posting and distribution of written materials, and College safety procedures.

Student Complaints/Grievance Process

Students are protected against capricious, arbitrary, unreasonable, unlawful, false, malicious or professionally inappropriate evaluations or behavior by a faculty member.

Student complaints may be classified as grievances and fall into three categories: Academic, Non-Academic and Discrimination. Academic grievances involve grades. To grieve a grade, a student must prove that the professor issued a grade by mistake, fraud, bad faith, or incompetence (Education Code 76224). Non-Academic grievances include: illegal discrimination, sexual harassment, financial aid, violation of College policies, any violation of Title IX or Section 504 related to students with disabilities.

Grievances must be filed no later than 30 school days (Monday - Friday when classes are in session) after the beginning of the primary term following the alleged violation, or 30 school days from the time that the student learns of the basis for the grievance. To begin the formal grievance process, students may pick up Grievance Procedures and forms from the Student Life Office, Building 9C. It is recommended that students meet with the Student Life Director regarding the grievance prior to starting the process since timelines are established for every step of the process and must be met precisely.

The process for filing and pursuing a grievance includes two levels: Level I (informal level) the student picks up the grievance forms and official procedures from Student Life and attempts to resolve the problem by meeting first with the faculty member (or staff member/administrator for non-academic grievances) and then to the faculty member’s department chair or immediate supervisor. If the complaint is not resolved at that level, the student will meet with the division dean of the division of the faculty defendant in an effort to resolve the problem. In the event that the problem cannot be resolved within 10 school days, the student may proceed to Level II (formal grievance) in which the student after completing the forms takes all signed forms and documents to the Student Life Office within the established deadlines.

A Grievance Review Committee chaired by the Dean of Student Services will review the grievance documents. This Committee may forward the grievance for a hearing that provides for a formal hearing process to seek clarification from the parties involved. If the student or faculty/staff member chooses to appeal the decision of the Committee, the appeal is submitted to the College President. The final appeal process resides with the Board of Trustees; their decision concludes the grievance process.

Smoking on Campus

Student, employee, and visitor health is a primary concern of Mt. San Antonio College. Because of the clear evidence of the harmful nature of smoke inhalation and because of the general concern over air contamination, Mt. San Antonio College in accordance with California State law, bans smoking within all campus buildings and in any outdoor area within twenty feet of any exterior exit or entrance to such a building. This includes all College-leased and College occupied buildings. Further, smoking is banned in the swimming pool area, Hilmer Lodge Stadium, and in all college vehicles.

Academic Adjustments for Students with Disabilities

Under Federal and State laws, the College is required to make modifications to academic requirements and practices as necessary in order to ensure that they do not discriminate against a qualified student with a disability. The College is also required to have a policy and procedure for responding to students with verified disabilities who request academic adjustments. Students with disabilities have the right to receive reasonable academic adjustments in order to create an educational environment where they have equal access to instruction without fundamentally altering any course, educational program or degree. Copies of the Policy and Procedures for Providing Academic Adjustments for Students With Disabilities are available in Disabled Student Programs & Services, ext. 4290.

Reserve Officer Training Corps (ROTC)

Students interested in pursuing a military career can participate in an approved Reserve Officer Training Corps program offered through local universities. Programs include the Air Force ROTC Program offered through the University of Southern California (USC) and Harvey Mudd College. Other university ROTC programs include the Army ROTC programs at Cal Poly Pomona, USC and Cal State Long Beach. These programs are open to community college students pursuing an undergraduate degree, prior to transfer. Competitive one- to four-year scholarships are available to qualified applicants. Additionally, students may be eligible to receive money to cover books and other costs.

Students interested in participating in an ROTC program are advised to contact the ROTC program at the participating university.

NOTICES

Equal Opportunity Statement

The Board of Trustees of Mt. San Antonio College has a commitment to establishing and maintaining a policy of equal educational and employment opportunities and prohibiting discrimination based on sex, race, color, religious creed, national origin, ancestry, age over 40, marital status, physical or mental disability (including HIV & AIDS), sexual orientation, or Vietnam Era Veteran Status. This commitment applies to educational programs, activities, service, and employment practices.

Notice of Students’ Rights

Students at Mt. San Antonio College are notified annually of their rights under the act within this section of the Catalog. More detailed information on student rights is available from the Dean, Enrollment Management, including: 1) type of information and material contained within the student’s educational record; 2) the official responsible for the maintenance of each type of record; 3) the procedure for student review and inspection of the educational record; 4) the procedure for challenging the contents of the educational record; 5) the charges to the student for reproducing copies of the record if requested; 6) the categories of information which the College has designated as Directory Information and to whom this information will be released unless the student objects; and 7) the rights of a student to file a complaint with the United States Department of Education concerning alleged failure of the College to comply with the provisions of the Act.

Federal Review Board

Students may file a complaint with the United States Department of Education, Room 5660, Independence Avenue, S.S., Washington, D.C. 20201, regarding alleged institutional violations of the Act.

Open Enrollment

All classes are open to all students who meet the course prerequisites and enrollment requirements, unless specifically exempted by statute. The College provides open access to all program offerings, opportunities, and support services without regard to sex, race, color, religious creed, national origin, ancestry, age over 40, marital status, physical or mental disability (including HIV and AIDS), sexual orientation, or Vietnam Era Veteran Status.

Public Safety

In compliance with the Clery Act, the College publishes an annual security report which contains information regarding campus crime statistics. This information may also be found on the website at www.mtsac.edu by clicking on Public Safety. Copies of the annual report can be obtained from the Public Safety Department, Building 4, Room 105. A Public Safety crime log is published bi-monthly in the student newspaper and brochures on Emergency Procedures are posted throughout the campus.

During the 2003-2005 calendar years, criminal offenses occurring on campus were reported to campus security authorities and local police agencies. Please see the Public Safety Department Statistical Crime Report listed in the box on the next page.

Emergency Procedures

Students and staff should report serious crimes and emergencies, i.e., fire/medical, occurring on campus to the Public Safety Department or call 911. When using an on-campus extension, call 9-911. Incidents may be reported to Public Safety by calling (909) 594-5611, ext. 4555,
The Public Safety Department's primary responsibility is the safety and security of those on the campus. 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.

### Public Safety Department Statistical Crime Report

<table>
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<tr>
<th>Violation</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
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<tr>
<td>Murder</td>
<td>0</td>
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<td>Rape</td>
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<tr>
<td>Robbery</td>
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<td>2</td>
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<td>17</td>
<td>4</td>
<td>12</td>
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<tr>
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<td>Illegal Drugs</td>
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<td><strong>Yearly Totals</strong></td>
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<td>174</td>
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24 hours a day. During normal business hours, Public Safety may be contacted at Building 4, Room 105, or by calling ext. 4230. The Public Safety Department is located at the southeast portion of the campus off Bonita Drive in Building 48. Public telephone locations on campus have at least one phone that is equipped with a red emergency button that is a direct line to the Mt. SAC Public Safety Office during and after business hours. In the event of an emergency, students and staff are requested to make a prompt and accurate report to the Public Safety Department.

### Enforcement

The Mt. San Antonio College Public Safety Department has the authority to enforce the Student Discipline Code of Conduct under the Education and Penal Codes of the State of California; and is the liaison with local police and sheriffs departments in cases of criminal actions.

Mt. San Antonio College District incident reports are not official police reports. If an official police report is required, the Los Angeles County Sheriffs Department in Walnut is the appropriate agency to contact.

### Crime Prevention

The Public Safety Department's primary responsibility is the safety and security of all members of the College community. Every effort is made to inform students and staff of criminal activity or any other concern that may be an immediate threat to the safety and security of those on campus. Information and workshops on crime prevention are made available to College students and staff. It is the responsibility of every member of the campus community to act in ways that promote the safety of self, others, and the protection of District property.

### Campus Emergency Phone System

Mt. San Antonio College has installed a campus-wide emergency phone system. This system is divided into two primary segments. The inner campus segment consists of emergency phones that are placed on the outside of selected campus buildings and are identified by the familiar blue light affixed to the top of the phone housing.

The second segment of emergency phones consists of stand-alone emergency phone towers, located in open campus spaces, primarily in campus parking lots. These phone towers are identified by a blue light affixed to the top of the tower.

Use of any of these emergency phones will connect the user to Campus Security during normal business hours, located in Building 4. During hours when the campus is closed, the Emergency phones will connect the user directly to a cell phone carried by Campus Security Officers who are on duty 24 hours a day, 7 days a week.

### Student Rights and Privacy Act

Following is a summary of the Mt. San Antonio College policy related to the Family Educational Rights and Privacy Act of 1974, O.L. 93-380, and Chapter 1297, Statutes of 1976, State of California:

#### Access to Educational Records

All former and present students have the right to review and inspect their educational records in the Office of Admissions and Records provided they make a written request fifteen (15) days in advance. Such a review will be under the direct supervision of a classified or certificated employee in the Admissions and Records Office. Expressly exempted from the right of review and inspection are the following materials:

1. Financial records of the parents of the student(s).
2. Confidential letters and statements of recommendation maintained by the College on or before January 1, 1975, provided that such letters or statements are not used for purposes other than those for which they were specifically intended.
3. Records of instructional, supervisory, counseling, and administrative personnel which are in the sole possession of such personnel and are not accessible or revealed to any other person except a substitute.
4. Records of employees of Mt. San Antonio College, made and maintained in the normal course of business which relate exclusively to such person in that person's capacity as an employee, are not available for use for any other purpose.
5. Records of students made and maintained by the Student Health Services, the College nurse, the College physician, and the College therapist, which are used in the treatment of students and are not available to anyone other than persons providing such treatment. However, such a record may be personally reviewed by a physician or other appropriate professional of the student's choice.

### Release of Educational Records Information

1. Any release of a student's educational records, with the exception listed below, must be made with the student's written consent.
2. The College may release copies of or otherwise divulge material in the student's educational records only to the official agencies, groups, officials, or individuals specifically mentioned below:
   a. College staff members; provided that such employees have a legitimate educational interest to inspect such a record.
   b. Representatives of the Comptroller General of the United States, the Secretary of Education, and administrative head of an educational agency, state education officials, and the United States Office of Civil Rights, where such information is necessary to audit a program.
   c. Accrediting organizations in order to carry out their accrediting functions.
   d. Organizations conducting studies on behalf of the institution.
   e. Officials of other schools or school systems in which the student seeks or intends to enroll subject to the rights of students.
   f. Agencies or organizations in connection with a student's application for financial aid.
   g. Organizations conducting studies for or on behalf of, educational agencies or institutions for the purpose of developing, validating, and administering predictive tests, administering student aid programs, and improving instruction, if such studies are conducted in such a manner as will not permit the personal identification of students or their parents by persons other than representatives of such organizations and such information will be destroyed when no longer needed for the purpose for which it is compiled.
   h. Appropriate persons in connection with an emergency if the knowledge of such information is necessary to protect the health and safety of the student or other persons.
   i. Courts or other agencies in compliance with a subpoena or judicial order. A reasonable effort will be made to notify the student in advance of the compliance by the College.
3. Directory Information:
   a. "Directory Information" means a student’s name, community of residence, major field of study, participation in officially recognized activities and sports, weight and height of members of athletic teams, dates of attendance, degrees and awards received, and the most recent previous public or private school attended by the student.
b. Any student desiring to withhold “Directory Information” may file a written request with the Dean, Enrollment Management, within fifteen (15) days of the opening day of each semester or session that the student does not want such information released.

c. The College reserves the right to limit or deny the release of specific categories of directory information based upon a determination of the best interests of the student(s).

The 1996 Solomon Amendment

The 1996 Solomon Amendment is federal law that compels institutions that receive federal funding to provide (upon request) directory information, plus address, phone number, age and class level to military personnel so that these personnel can recruit students.

Transfer of Information to Third Parties

Educational records or personal information transferred to other institutions or agencies will not be transferred to a third party without the written consent of the student.

Student Right-to-Know Rates

Completion Rate: 28.39%
Transfer Rate: 22.63%
From 2004 COHORT Data

In compliance with the Student-Right-to-Know and Campus Security Act of 1990 (Public Law 101-542), it is the policy of the Mt. San Antonio Community College District and Mt. San Antonio College to make available its completion and transfer rates to all current and prospective students. Beginning in Fall 2004, a cohort of all certificate-, degree-, and transfer-seeking first-time, full-time students were tracked over a three-year period. These rates do not represent the success rates of the entire student population at Mt. San Antonio College, nor do they account for student outcomes occurring after this three-year tracking period.

Based upon the cohort defined above, 28.39 percent attained a certificate or degree or became 'transfer-prepared' during a three-year period, from Fall 2004 to Spring 2007. Students who are ‘transfer-prepared’ have completed 56 transferable units with a GPA of 2.0 or better.

Based on the cohort defined above, 22.63 percent transferred to another postsecondary institution, (UC, CSU, or another California Community College) prior to attaining a degree, certificate, or becoming ‘transfer-prepared’ during a five semester period, from Spring 1998 to Spring 2007.
Section 13

Faculty and Academic Administrators
The Faculty

A
Anderson, Toni (2006) English, Literature & Journalism B.A., University of La Verne M.A., University of Nebraska


Allen, Jerry B. (1971) History, Art History, Geography, Political Science B.A., M.A., Brigham Young University Ph.D., Claremont Graduate School J.D., Loyola University School of Law


Allen-Kodama, Linda (1991) Fine Arts A.A., Los Angeles City College B.A., California State University, Long Beach M.F.A., California State University, Fullerton

Al-Malood, Fawaz (2003) Consumer & Design Technologies B.S., University of South Carolina M.B.A., Columbus University, Mississippi Ph.D., Pacific Western University, Hawaii

Alvarez, Hansel (2007) English, Literature & Journalism B.A., California State University, San Bernardino M.A., California State Polytechnic University, Pomona

Alvarez-Galvan, Maya (2000) English, Literature & Journalism B.A., M.A., California State University, Los Angeles M.A., California State Polytechnic University, Pomona Ph.D., University of Southern California


Anderson, Alison (2006) Biological Sciences B.S., California State University, Bakersfield M.S., California State Polytechnic University, San Luis Obispo

Anderson, Cynthia B. (1986) Biological Sciences B.S., Arizona State University M.S., University of Illinois

Anderson, Daniel P. (2000) Physics, Engineering B.S., University of California, Los Angeles M.S., California State Polytechnic University, Pomona


Anderson-Perry, Carolyn (2004) Nursing A.S.N., Los Angeles Southwest College B.S.N., California State University, Dominguez Hills M.S.N., University of Phoenix

Andrade, Renée (1984) Foreign Languages A.A., Los Angeles City College B.A., California State University, Los Angeles M.A., Ph.D., University of California, Irvine

Andrews, Barry (2001) Computer Information Systems B.S., Indiana University M.S., California State University, Fullerton


Aquino, Lloyd (2007) English, Literature & Journalism B.A., M.A. California State Polytechnic University, Pomona


Arterburn, Pamela (1986) English, Literature & Journalism B.A., M.A., California State Polytechnic University, Pomona

Arvidson-Perkins, Genene (1988) Nursing A.S., Mt. San Antonio College B.S., California State University, Fullerton M.S., California State University, Los Angeles PHN Certificate

Astorga, Juan Carlos (2005) Student Services-Upward Bound B.A., University of California, San Diego M.A., San Diego State University

Austin, Jerry D. (2003) Director, Fire Technology A.A., Santa Ana College B.V.E., California State University, Long Beach M.A., Chapman University

Avila, Rocio (2006) English, Literature & Journalism B.A., California State Polytechnic University, Pomona M.A., California State University, Fullerton

B
Bacigalupi, Stacy (2006) Psychology, Education B.A., University of California, Santa Barbara M.A., California State University, Fullerton

Bartman, Sydney (1986) English, Literature & Journalism A.A., University of La Verne M.A., University of California, Riverside

Beam, Teresa (1991) Chemistry B.S., Ohio University M.S., California State University, Fullerton

Becker, Liza (1998) Director, ESL B.A., California State University, Los Angeles M.S., California State University, Fullerton

Beeman, Laura (1996) Physical Education B.A., California State University, San Bernardino M.A., Azusa Pacific University

Birca, Alina (2005) Mathematics, Computer Science B.S., University of Alexsandru Ioan Cuza of Iasi M.A., California State University, San Bernardino

Blackmore, Deborah L. (1974) Dean, Physical Education B.S., M.S., California State Polytechnic University, Pomona

Blake-Judd, Jemma (1990) Associate Dean, Technology & Health B.A., M.A., California State Polytechnic University, Pomona

Blyzka, John V. (2001) Computer Information Systems B.S., University of California, Irvine M.S., California State University, Fullerton

Boehner-Staylor, Maya (2001) English, Literature & Journalism B.A., California State University, Los Angeles M.A., Northwest Missouri State University

Borella, Frances (1999) Biological Sciences A.A., Mt. San Antonio College B.S., California State Polytechnic University, Pomona M.A., Ph.D., University of California, Riverside

Bartman, Sydney (1986) English, Literature & Journalism A.A., Mt. San Antonio College B.A., University of La Verne M.A., University of California, Riverside

Beem, L.J. (2000) Computer Information Systems B.S., California State Polytechnic University, Pomona
The Faculty
The Faculty

Chen, Meghan (2000)
Dean, Library & Learning Resources
B.S., University of California, Los Angeles
M.P.A., California Lutheran University
M.A., California State University, Los Angeles

Chevalier, Jason (2000)
Music
B.A., M.A., California State University, Fullerton

Christopher, Milcol (2005)
Earth Sciences, Astronomy
B.A., Harvard University
M.S., Ph.D., California Institute of Technology

Churchill, Peter (2005)
English, Literature & Journalism
B.A., M.A., California State University, Fullerton

Condra, Denise (2006)
Nursing
B.A., Whittier College
B.S.N., M.S.N., Azusa Pacific University

Cooper Mark J. (1997)
Biological Sciences
B.S., M.S., California State Polytechnic University, Pomona

Coreas, Kelly (2000)
Respiratory Therapy
A.S., East Los Angeles College
B.S., Loma Linda University
M.S., Western University Pomona

Craft, Thomas (2007)
Physical Education
B.A., San Diego State University
M.A., Azusa Pacific University

Crespo, Beverly Baker (1980)
Office Technology
A.A., Long Beach City College
B.S., California State University, Long Beach
M.S., California State Polytechnic University, Pomona

Child Development
B.S., California State University, Fullerton
M.S., Pacific Oaks College

Daland, William (2005)
Counseling
B.A., California State University, Fullerton
M.S., California State University, Long Beach

Daum, Sarah (1998)
Dean, Technology & Health
A.B., Stanford University
M.S., University of Michigan
Ed.D., Nova Southeastern University

Davis, Maria (2005)
Consumer Science & Design Technologies
B.A., American InterContinental University

Degtyareva, Anna (1999)
Computer Information Systems
B.S., M.S., Leningrad University for Economics Engineers
M.S., California State University, San Bernardino

Deines, Craig B. (1997)
Fine Arts
B.A., M.F.A., Central Washington University

DePaola, Gina (1991)
English, Literature & Journalism
B.S., Metropolitan State College, Denver
M.S., California State University, Long Beach

Diederichs, Melanie (1991)
Child Development
A.R., Riverside City College
B.S., M.Ed., California State University, Fullerton

Diem, Andrea (1991)
Sociology, Philosophy
B.A., University of California, San Diego
M.A., Ph.D., University of California, Santa Barbara

D’Incognito, Patrick (1989)
Aircraft Maintenance & Manufacturing
A.S., Mt. San Antonio College
F.A.A. Certificate, Airframe and Powerplant
F.A.A. Certificated Designated Mechanic Examiner

Di Mauro, Eileen (1991)
Chemistry
B.A., University of California, Santa Barbara
M.S., University of California, Irvine

Distante, Debbie (2000)
Librarian
B.A., Morningside College
M.A., University of Iowa

Domico, Brenda L. (1997)
Accounting & Management
B.S., M.B.A., California State Polytechnic University, Pomona
Certified Managerial Accountant

Dorough, George D. (1991)
Sign Language
A.A., Rochester Institute of Technology
B.A., M.Ed., University of Massachusetts

Dougherty, Michelle (2007)
English, Literature & Journalism
B.A., M.A., California State Polytechnic University, Pomona

Dowdle, Michael (2005)
Psychology, Education
A.A., Butte Community College
B.A., M.A., California State Polytechnic University, Chico

Dua, Amrik Singh (1990)
Business Administration
B.A., M.A., Panjab University
M.A., Dalhousie University
Ph.D., Southeastern University

Dyer, Dorothy J. (1985)
RHORC
B.S.N., California State University, Los Angeles
Standard Designated Teaching Credential: Subject Field Nursing, Special Sciences and Pan African Studies
M.S., California State University, Los Angeles
M.S., Nursing – Secondary in Nursing Education
California State University, Dominguez Hills

E

Earhart, Kimberly (2005)
History, Art History, Geography, Political Science
A.A., Riverside Community College
B.A., M.A., Ph.D., University of California, Riverside

Eastman, Ralph M. (1980)
Theater
B.A., Antioch College, Ohio
M.A., Trinity College, Connecticut
M.F.A., University of California, Los Angeles

Eatman, Elisabeth (2006)
Consumer & Design Technologies
B.S., California State University, Long Beach

Edson, Thomas (2006)
English, Literature & Journalism
B.A., University of California, Irvine
M.A., Chapman University

Edwards, William (2005)
Mathematics, Computer Sciences
B.S., M.S., California State Polytechnic University, Pomona

Eisley, Benjamin N. (1990)
Air Conditioning & Welding
A.A., Cerritos College
B.S., M.S., Eastern Michigan University

Ellwood, Jeffrey (2006)
Music
B.M., Berklee College of Music
M.M., California State University, Fullerton

Emanuel, Elaine S. (1998)
Office Technology
A.S., Mt. San Antonio College
B.S., University of La Verne
M.A., University of Phoenix

Engisch, Paulette (2003)
Radiologic Technology
A.S., Mt. San Antonio College
B.S., University of St. Francis California
C.R.T., Certified Radiologic Technologist California
Certified Mammographer
R.T., American Registry of Radiologic Technology
R.T. (M), American Registry of Mammography

Engle, Tim (2006)
Disabled Student Programs & Services
B.S., Liberty University, Lynchburg, VA
M.A., Psy.D., Biola University, La Mirada
Psy.D., Biola University, La Mirada
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<td>Learning Assistance</td>
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<td>Medical Services</td>
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<td>Communication</td>
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<td>Welding</td>
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<td>Mental Health Technology</td>
<td>B.A., California State University, Fullerton</td>
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Director, P.E. & Wellness Programs  
B.S., California State Polytechnic University, Pomona  
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Johnson, Mary T. (1997)  
Computer Information Systems  
B.A., California State University, Fullerton  
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English, Literature & Journalism  
B.A., University of California, Los Angeles  
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Kemp, Kurt A. (2000)  
Foreign Languages  
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Physics & Engineering  
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Kim, Candice S. E. (2000)  
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Kirchgraber, Albert (1999)  
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Kittle, Paul (2004)  
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Kohn, Dafna (2001)  
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Kolchakian, Misty (2005)  
Psychology, Education  
B.S., University of Florida  
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Krider, Terrance M. (1981)  
Respiratory Therapy  
A.S., Washtenaw Community College  
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Kunkler, Constance (2000)  
Librarian  
B.S.N., M.S.N., California State University, Dominican Hills  

Kuykendall, Carolyn (2009)  
Director, Honors Program  
M.A., Chapman University  

L  

Landeros, Darlene (2001)  
Child Development  
A.A., Rio Hondo Community College  
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Lane, David C. (1989)  
Sociology, Philosophy  
A.A., Los Angeles Valley Community College  
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Lawlor, Elizabeth (2000)  
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Lawson, M. Alan (1990)  
Business Administration  
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Leader, Jennifer (2006)  
American Language  
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Ledeboer, Lisa (2006)  
Consumer Science & Design Technologies  
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Lee, Eddie (2006)  
Chemistry  
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Lizarraga, Max (1993)  
Architecture & Engineering Design Technology  
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History, Art History, Geography, Political Science  
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Loera-Ramirez Dionne (2001)  
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Long, Gary (1984)  
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Long, Susan (1998)  
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Long, Terri Smith (1989)  
Earth Sciences, Astronomy  
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THE FACULTY

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Section 13 259
The Faculty

McGeough, Daniel (1986)
Accounting & Management
B.A., California State Polytechnic University, Pomona

McFarland, Thomas (1997)
Accounting & Management
B.A., M.S., California State Polytechnic University, Pomona

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B.S., San Diego State University
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Certified Public Accountant

McGraw, Jill (1991)
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A.S., Santa Ana College
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McGruder, Charles (1992)
Sociology, Philosophy
B.A., University of Redlands, Johnston College
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McIntosh, William (1999)
Music
B.A., B.M., Biola University
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McKee, Catherine (1995)
Business Administration
B.A., University of California, Berkeley
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McLaughlin, David L. (1997)
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A.A., A.S., Mt. San Antonio College
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Foreign Languages
B.A., Carthage College, Wisconsin
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Ma, Jannie (2008)
Learning Assistance
B.A., M.A., University of Southern California
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Maestro, Patricia (2004)
Counseling/Coordinator Learning Communities
A.A., East Los Angeles Community College
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English, Literature & Journalism
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Foreign Languages
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Mathematics, Computer Science
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Physics, Engineering
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Business Administration
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Dean, Counseling
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Communication
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Computer Information Systems
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Biological Sciences
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Commercial and Entertainment Arts
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<td>M.S., Northern Arizona University</td>
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<td>Ph.D., Valley Christian University</td>
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<table>
<thead>
<tr>
<th>Name</th>
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<th>Degree/Institution</th>
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<tbody>
<tr>
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<tr>
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<tr>
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<tr>
<td>Thomas, James D.</td>
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## Index

### A

- ability to benefit test, 9
- academic adjustments, for students with disabilities, 250
- academic distinction, 15
- academic freedom, 11
- academic grievances, 250
- academic honesty policy, 248
- academic honors, 15
- academic policies and requirements, 11–16
- academic probation, 16
- academic renewal, 16
- academic standards, 16
- access to educational records, 251
- accounting
  - certificates, 32–33, 54
  - course descriptions, 134–135
  - major, 69
- administrative services staff, 2
- human resources staff, 2
- information and educational technology staff, 2
- instruction staff, 2
- president's office staff, 2
- student services staff, 2–3
- administration of justice, 24
- administration, 15
- law enforcement courses, 114
- administrative assistant
  - certificate, 33, 54
  - major, 69
- occupational training certificates, 222
- administrative justice, continuing education course descriptions, 235
- admissions and records, 18
- acceptance of domestic coursework from accredited colleges and universities in the United States, 7
- admission of international students, 7
- application to the college, 6
- articulation with high schools, ROPs, and adult schools, 7
- concurrent enrollment for K-12 students (special admits), 6
- enrollment fees and expenses, 8
- evaluation of other college coursework, 7
- registration, 8
- residence classification, 6
- residency requirements (for fee purposes), 6
- adult education. See continuing education
- advanced placement (AP) tests
  - college credit for, 13
    - in CSU general education—breadth certification, 14
  - advertising design and illustration major, 69
    - advisement
      - academic counseling/advisement, 9
      - advising center, 16, 112
      - advisory prerequisite, 112
      - advisory to a course, 9
      - aeronautics course descriptions, 114–115
      - aesthetics for technology certificate, 54
      - agri-business course descriptions, 115
      - agricultural science
        - continuing education course descriptions, 235–237
        - occupational training certificates, 217–218
      - agriculture course descriptions
        - agri-business, 115
        - animal health technology, 115–116
        - animal science, general, 116
        - forestry, conservation, 116
        - general subjects, 116–117
        - livestock production, 117
        - ornamental horticulture, 117–119
        - pet science, 119
        - agri-technology major, 69
      - air conditioning and refrigeration certificate, 33
      - course descriptions, 120
        - major, 70
      - aircraft maintenance technology, 121–123
      - aircraft powerplant maintenance technology, day and evening, certificate, 33–34
      - airframe and aircraft powerplant maintenance technology, day and evening, major, 70
      - airframe maintenance technology, day and evening, certificate, 34
      - air traffic control, 121
      - alcohol and other drugs policies, 248
      - alcohol/drug counseling certificate, 35
      - course descriptions, 123
        - major, 71
      - Alpha Gamma Sigma, 15
      - American language course descriptions, 123–124
      - anatomy and physiology courses, 124–125
      - animal health technology course descriptions, 115
      - animal science, general, course descriptions, 116
      - animals on campus, policy, 248
      - animation
        - certificates, 35–36
        - course descriptions, 128–130
        - major, 71
      - anthropology course descriptions, 125
      - appeals process dismissal, 16
      - petition for exceptional action, 11
      - placement, 8
      - residence classification, 6
      - application
        - to the college, 6
        - for graduation, 64
      - aquatics course descriptions, 188
      - Arabic, 125
      - architectural technology
        - certificates, 36
        - continuing education course descriptions, 237
        - computer aided graphics, visual arts and design programs, 24–25
        - course descriptions, 125–126
        - major, 71–72
      - architecture & engineering design technology department, 24
      - art
        - advertising design/graphics courses, 128
        - aesthetics for technology certificate, 54
        - animation courses, 128–130
        - art history courses, 126–128
        - basic studio arts courses, 130
        - computer aided graphics, visual arts and design programs
          - gallery and professional practices courses, 130
        - special studio arts courses, 130
        - three-dimensional studio arts courses, 131
        - two-dimensional studio arts courses, 131–132
      - art gallery, 27
      - articulation with high schools, ROP’s, and adult schools, 7
      - arts division, 2
      - assessment and placement, 8
      - exemption from assessment, 9
      - assessment center, 18
      - Assessment of Written English (AWE), 7, 8, 43, 49, 76, 84
      - associate degree, general requirements for, 64–65
      - Associated Students (AS) Student Government, 21
      - associate in science degree (A.S.)
        - alphabetical listing, 67–68
        - graduation requirements, 64, 65
        - listing by instructional division, 68
        - programs of study leading to, 69–100
      - associate of arts degree (A.A.)
        - areas of emphasis requirements
          - business, 96
          - communication, 96
          - fine arts, 96–97
          - humanities, 97
          - information technology, 97–98
          - kinesiology and wellness, 98
          - language arts, 98–99
          - mathematics, 99
          - music, 99
          - natural sciences, 99
          - social and behavioral sciences, 100
      - associate of arts degrees (A.A.)
        - graduation requirements, 64, 65
        - programs of study leading to, 69–100
      - astronomy course descriptions, 132–133
      - athletic facilities, 27

---

2009-10 Mt. San Antonio College Catalog
Index

INDEX

athletics course descriptions, 188–189

business course descriptions
accounting, 134–135
business management, 136–137
continuing education courses, 237–239
economics, 135–136
law, 136

Campus Café, 27
campus disturbances, policy, 248
campus emergency phone system, 251
Campus Escorts, 21, 249
campus facilities, 27–28
campus hours, policy, 248
campus map, 274–275
CAN (California Articulation Number system), 112
canceled classes, 8

CARE (Cooperative Agencies Resources for Education), 19
career and transfer services, 18
career and transfer services, 21
career counseling, 9
career development certificate of competency, 216
career placement services. See career and transfer services
catalog rights, 12
certificates
of achievement, 30–31, 32–53
of competency, 215, 216–224
noncredit list of, 215
occupational training, 215, 216–224
programs of study leading to, 30–62
requirements for skills certificates, 54–62
certified nursing and acute care nursing assistant, 221
occupational training certificate, 221
cheating policy, 248
chemical laboratory technician, major, 72–73
chemical laboratory technician, major, 72–73
calWORKS (California Work Opportunities and Responsibility to Kids), 19
child care access grant funding, 21
child development
course descriptions, 141–143
major, 73
child development center, 21
child development permit, 73, 141
children on campus, policy, 248
children’s program certificate
of achievement, 30–31, 32–53
of competency, 215, 216–224
noncredit list of, 215
child specialization (school age) certificate, 52
Chinese course descriptions, 143
CIS professional certificate. See computer information systems, professional certificates
citizenship, continuing education course description, 232
classification of student by credits, 12
classroom visitors policy, 248
clearing probation, 16
clubs and organizations, 21
coaching certificate, 57
College Calendar, 2009–10, vi–viii
College Directory, ix
commercial and entertainment arts certificate, 30
department, 24–25
crime and transfer services, 21
parent education, 235
student services, 213
Index

continuing education course descriptions, 235–237
administrative justice, 235
agricultural science, 235
architectural technology, 237
basic skills, 229
business, 237
citizenship, 232
computer operations, 239
computer programming, 240
computer technology, 240
correctional sciences, 240
disabled students, 232
electronics, 240
engineering design technology, 241
fashion and fashion design, 242
geography, 242
health, 242
hospital and restaurant management, 243
interior design, 244
manufacturing technology, 244
nutrition and food, 244
older adults, 233
parent education, 235
photography and graphics, 244
service learning, 245
special needs population job readiness skills, 245
stained glass production, 246
theater arts, 246
welding, 246
woodworking, 246
complaints, 250
computer aided fashion design certificate, 57
computer aided graphics, visual arts and design programs, 24–25
computer and networking technology certificates, 40
course descriptions, 149–150
major, 74
occupational training certificate, 220
course descriptions, 143–144
computer graphics course descriptions, 144–145
computer graphics design/photography certificate, 40
major, 73
occupational training certificate, 223
course descriptions, 145
beginning, 145
data base, 145–146
management, 146
networking, 146
programming, 146–147
security, 147–148
web applications, 148
computer information systems department, 25
computer information systems professional certificates
C# programming, 55
C++ programming, 56
database management, microcomputers, 55
Java programming, 56
LINUX, 56
networking, 56
network security, 56
object-oriented design & programming, 55
Oracle, 56
SAQ and web services, 56
SQL, 56
telecommunications, 57
visual basic programming, 57
web programming, 57
Windows operating system administration, 55
computer information technology, introduction to, certificate, 60
certified accounting technician, 32, 217
certified computer network administration and security management, major, 74
course descriptions, 239–240
computer and networking technology certificates, 40
computer and networking technology courses, 149–150
major, 74
occupational training certificate, 220
course descriptions, 143–144
courses, 143–144
major, 74
occupational training certificate, 220
course descriptions, 145
beginning, 145
data base, 145–146
management, 146
networking, 146
programming, 146–147
security, 147–148
web applications, 148
computer information systems department, 25
computer information systems professional certificates
C# programming, 55
C++ programming, 56
database management, microcomputers, 55
Java programming, 56
LINUX, 56
networking, 56
network security, 56
object-oriented design & programming, 55
Oracle, 56
SAQ and web services, 56
SQL, 56
telecommunications, 57
visual basic programming, 57
web programming, 57
Windows operating system administration, 55
computer information technology, introduction to, certificate, 60
certified accounting technician, 32, 217
certified computer network administration and security management, major, 74
course descriptions, 239–240
computer and networking technology certificates, 40
computer and networking technology courses, 149–150
major, 74
occupational training certificate, 220
course descriptions, 143–144
courses, 143–144
major, 74
occupational training certificate, 220

D
dance course descriptions, 150–153
dance studio, 28
database management systems
major, 73
microcomputers, professional certificate, 55
data entry certificate, 57
occupational training certificate, 222
dean’s list, 15
definitions of terms, 11, 112
degree appropriate courses, 112
digital 2- and 3-dimensional animation certificate, 35
disabled student programs & services (DSP&S), 18–19
disabled students
continuing education course descriptions, 232
credit course descriptions, 153
“Disabled Person” permit, 18
policy for providing academic adjustments for, 250
study skills laboratory, 214
dismissal
appeal of, 16
reinstatement after, 16
distance learning program, 23
dress regulation, 248
driving and parking, policies, 248
dropping courses, 11

E
early examinations, 13
economic development directors, 3
economics course descriptions, 135–136
educational para professional certificate, 41, 57
major, 73
educational records
access to, 251
challenge of, 16
definition of, 16
release of information, 251–252
transcripts, 16
transfer of information to third parties, 252
education course descriptions, 153
electronic assembly and fabrication
certificate, 57
occupational training certificate, 220
electronics
continuing education course descriptions, 240–241
credit course descriptions, 153–155
industrial systems certificate, 42–43
occupational training certificates, 220–221
electronics and computer engineering technology, 42
certificate
major, 75
occupational training certificate, 221
electronics and computer technology
continuing education course descriptions, 241
department, 25
electronics communications
certificate, 42
occupational training certificate, 221
electronics systems technology
certificate, 42
course descriptions, 155
occupational training certificates, 220
electronics technology
certificate, 42
occupational training certificate, 221
electronic systems technology—level I, certificate, 58
eligibility requirement, for enrolling in a course, 6
emergency medical service
course descriptions, 155–156
major, 75
emergency medical technician certificate, 58
emergency medical technician-paramedic (EMT-P)
certificate, 43–44
electronic systems technology—level I, certificate, 58
eligibility requirement, for enrolling in a course, 6
emergency medical service
course descriptions, 155–156
major, 75
electronics communications
certificate, 42
occupational training certificate, 221
electronics systems technology
certificate, 42
course descriptions, 155
occupational training certificates, 220
electronics technology
certificate, 42
occupational training certificate, 221
electronic systems technology—level I, certificate, 58
eligibility requirement, for enrolling in a course, 6
emergency medical service
course descriptions, 155–156
major, 75
electronics communications
certificate, 42
occupational training certificate, 221
electronics systems technology
certificate, 42
course descriptions, 155
occupational training certificates, 220
electronics technology
certificate, 42
occupational training certificate, 221
electronic systems technology—level I, certificate, 58
eligibility requirement, for enrolling in a course, 6
emergency medical service
course descriptions, 155–156
major, 75
electronics communications
certificate, 42
occupational training certificate, 221
electronics systems technology
certificate, 42
course descriptions, 155
occupational training certificates, 220
electronics technology
certificate, 42
occupational training certificate, 221
electronic systems technology—level I, certificate, 58
eligibility requirement, for enrolling in a course, 6
emergency medical service
course descriptions, 155–156
major, 75
English as a second language (ESL)
certificate of competency, 216
continuing education classes and services, 213, 232
English course descriptions
composition, 157–159
literature, 174–175
English placement test, 8
English prerequisites, 9
enrollment fees and expenses, 8
EOPS. See extended opportunity programs and
services (EOPS)
equal opportunity statement, 250
equipment technology major, 77
escore service, 21, 249
escrow management
certificate, 44
major, 77
ESL. See English as a second language (ESL)
evaluation of other college coursework, 7
exemption from assessment, 9
exercise science/wellness center, 27
Express Stag, 27
extended opportunity programs and services (EOPS), 19
extra institutional learning, credit for, 14–15
eye protection policy, 248
F
certificate, 221–222
federal review board, 250
family and consumer sciences
course descriptions, 159
major, 77
family child care certificate, 44
Farm, 27
fashion and fashion design, continuing education
course descriptions, 242
fashion merchandising and design
certificates, 44–45, 58
course descriptions, 159–161
major, 77–78
General education requirements, 65–67
General subjects, agriculture, course descriptions, 116–117
Generations Program, 214
generics
continuing education course descriptions, 242
credit course descriptions, 164–165
generics
continuing education course descriptions, 242
credit course descriptions, 164–165
geography
continuing education course descriptions, 242
credit course descriptions, 164–165
german course descriptions, 166–167
governor, student, 21
gPA requirement, 20
graduation requirements--degree programs, 64
GRADUATION HONORS, 15
GRADUATION REQUIREMENTS, 64
GRIEVANCE PROCESS, 250
H
cost of living, 23
continuing education course descriptions, 242–243
cost of living, 23
continuing education course descriptions, 242–243
health careers, occupational training certificates, 221–222
health careers resource center (HCRC), 214
health care interpreting, occupational training
certificate, 214
health careers, occupational training certificates, 221–222
health careers resource center (HCRC), 214
health care interpreting, occupational training
certificate, 214
health services, student, 20
high school program, 216
histoeducation and histotechnology, 186–187
hisptotechnology, course descriptions, 167–169
honors
degree list, 15
graduation honors, 15
president's list, 15
honors program
entrance requirements, 15
requirements for "Honors Scholar" designation, 15
Index

horse ranch management
   certificate, 45
   major, 80
   occupational training certificate, 217
hospitality and restaurant management
catering certificate, 45
course descriptions, 169
food services certificate, 59
   hospitality management certificates, 46, 60
   major, 80
   restaurant management certificate, 46, 60
hotel and restaurant management, continuing
education course descriptions, 243–244
humanities and social sciences division, 3
humanities course descriptions, 170
   human resource management
certificates, 37, 54
   major, 81
   occupational training certificate, 219
human resources, Mt. San Antonio College, 2
hybrid (online-supported) classes, 23

I
   IGETC. See intersegmental general education transfer
curriculum (IGETC)
   incomplete grades, 12
   independent colleges and universities, 110
   individual physical education courses, 192–194
   industrial electronics, occupational training
certification, 221
   infant/toddler development certificate, 46
   information and educational technology staff, 2
   information and operating systems security
certificate, 60
   inspection and estimating, building (INSP) course
descriptions, 170
   instructional divisions, 3–4
   arts division, 3
   business and economic development division, 3
   continuing education division, 3
   humanities and social sciences division, 3
   library and learning resources division, 3
   natural sciences division, 4
   physical education division, 4
   technology and health division, 4
   instruction and learning resources
distance learning program, 23
   Math Activities Resource Center (MARC), 23
   study abroad program, 23
   work experience education, 23
   Writing Center, 23
   instruction staff, 2
   Inter-Club Council (ICC), 21
   interior design
certificates, 46–47
   continuing education course description, 244
   credit course descriptions, 170–171
   interior design major, 81
   kitchen and bath design certificate, 46
   kitchen and bath design major, 81
   merchandising, 46
   interior landscaping
certificates, 47
   occupational training certificate, 217
   international baccalaureate credit for Mt. Sac general
   education requirements for the associate degree, 14
   international business
certificates, 37, 54
   major, 81
   occupational training certificates, 219
   international student programs, 20
   international students, 7
   intersegmental general education transfer
curriculum (IGETC), 108
   certificate, 32
   IGETC after-transfer partial certification of, 110
   introduction to computer information technology, 60
   IP (in progress), 12
   Italian course descriptions, 171–172

J
   Japanese course descriptions, 172
   Java programming professional certificate, 56
   job readiness skills, special needs population,
   occupational training certificate, 223
   journalism course descriptions, 172–173

K
   kitchen and bath design certificate, 46
   kitchen and bath design major, 81

L
   landscape and park maintenance
certificate, 47
   occupational training certificate, 217
   landscape design and construction
certificate, 47
   occupational training certificate, 217
   landscape equipment technology
certificate, 47
   occupational training certificate, 218
   landscape irrigation
certificate, 48
   occupational training certificate, 218
   language learning center (LLC), 213
   Latin course descriptions, 173
   law enforcement
certificate, 48
   major, 82
   leadership course descriptions, 173
   learning assistance center, 24
   learning assistance services course descriptions,
   173–174
   legal office specialist certificate, 48
   legal residence, criteria for determination of, 6
   Library, 24
   library and instructional media course descriptions,
   174
   library and learning resources, 24
   licensed vocational nurse (LVN)
career mobility track certificate, 60
   to RN, major, 82–83
   licensed welding
certificate, 53
   occupational training certificate, 223
   limitation on repeating courses, 11
   LINUX professional certificate, 56
   literature course descriptions, 174–175

M
   livestock management
certificate, 48
   major, 83
   occupational training certificate, 218
   livestock production course descriptions, 117
   LVN. See licensed vocational nurse (LVN)
   machine operator certificate, 61
   management course descriptions, 136–137
   managerial accounting certificate, 32–33
   manufacturing technology
certificate, 48
   continuing education course descriptions, 244
   credit course descriptions, 175–176
   major, 83
   occupational training certificates, 222
   marketing, sales, and merchandising course
descriptions, 139–140
   marketing management
certificate, 48
   major, 83
   MasterCAM
certificate, 61
   occupational training certificate, 222
   Math Activities Resource Center (MARC), 23
   mathematics
   computer science/mathematics, 25
   course descriptions, 176–178
   department, 25
   prerequisites, 9
   mathematics placement test, 8
   matriculation services, 6–9
   media services, 24
   medical office specialist
certificate, 49
   occupational training certificate, 222
   medical terminology course descriptions, 178
   mental health/psychiatric technician
certificate, 49–50
   course descriptions, 178–179
   major, 84
   merchandising, sales, and marketing course
descriptions, 139–140
   meteorology course descriptions, 179
network administration and security management, 4

Mt. San Antonio College
2009-10 College Calendar, vi–viii
College Directory, ix
faculty directory, 254–265
history, 1
human resources, 2
mission, vision, and values, 1
Mountie Grill, 27
Mountie Stop, 27
Mountie volunteer program (MVP), 214

N
natural sciences division, 4
network administration and security management major, 74

O
object-oriented design and programming professional certificate, 55
obligations, student, 8
occupational training certificates, 215, 216–224
online computer applications, occupational training certificate, 222
office technology course descriptions, 137
occupational training certificates, 222
older adults, continuing education course descriptions, 233–235
online learning classes, 23
online-supported (hybrid) classes, 23
open enrollment, 250
operating system administration professional certificate, Windows, 55
Oracle professional certificate, 56
organizations, student, 21
orientation basic skills and ESL students, 213
credit students, 9
exemption from, 9
ornamental horticulture course descriptions, 117–119
major, 86

P
paralegal/legal bankruptcy specialty major, 86
corporations/business specialty major, 87
course descriptions, 137–138
criminal specialty major, 87
family law specialty major, 87–88
landlord/tenant specialty major, 88
paramedic (EMT-P) certificate, 43–44
parametric solid modeling certificate, 62
occupational training certificate, 222

parents education, continuing education course description, 235
parking “disabled person” permit, 18
permit, 8
park management certificate, 50
major, 88
occupational training certificate, 218
part-time student, defined by credits, 12
pass/no pass grades, 13
payroll certificate, 54
occupational training certificate, 217
performing arts center, 27
box office, 28
petition for exceptional action, 11
pet science certificate, 50
course descriptions major, 88
occupational training certificate, 218
philosophy course descriptions, 185–186
Phi Theta Kappa, 15
photography and photographics certificate, 50
continuing education course descriptions, 244–245
computer graphic design/photography credit course descriptions, 186–187
major, 89
occupational training certificate, photography, 223
photo ID cards, 18
physical education activity unit, 112
division, 4
major, 89
physical education courses adaptive, 187
aquatics, 188
athletics, 188–190
fitness, 190–192
individual, 192–194
team sports, 194
theory, 195–196
physical science course descriptions, 196
physical therapy aide course descriptions, 196
physician assistant preparatory course descriptions, 196
physics course descriptions, 196–197

placement services, career. See career and transfer services
placement tests appeals process, 8
placement test and eligibility time limits, 8
retest policy, 8
test scores and placement from other colleges, 8
plagiarism policy, 248–249
planetarium, 28
policies and notices, 248–252
political science course descriptions, 197
pre-collegiate basic skills courses, 9
prerequisites, 9
preschool program, state, 21
president’s list, 15
president’s office staff, 2
primary term, 11–12
Prime Stop, 27
privacy act, 251
private fire service major, 79
probation academic probation, 16
clearing, 16
probation and dismissal status, 16
progress probation, 102
programming. See computer programming
programs of study leading to an associates degree, 64–100
programs of study leading to transfer, 102
psychiatric technician certificate, 49–50

course descriptions, 178–179
major, 84
to RN major, 89–90
psychology course descriptions, 197–198
public safety department annual security report, 250
campus number, 249
statistical crime report, 251
public works/landscape management certificate, 51

Q
Quick Stop, 27
Index

R
radio and television course descriptions, 198–201
radio broadcasting
on the air certificate, 51
on the air major, 90–91
behind the scenes certificate, 51
behind the scenes major, 90
radiologic technology
course descriptions, 201–202
major, 91–92
radio station, 28
RD (report delayed), 12
reading course descriptions, 202
reading placement, 8
real estate
certificate, 51
course descriptions, 138–139
major, 92
real estate appraisal
certificate, 51
major, 92
records. See educational records
re-entry services, 19, 20
refunds
for credit classes
of fees, 8
textbooks and supplies, 27
registered veterinary technology major, 92–93
registration
canceled classes, 8
enrollment fees and expenses, 8
refund of fees, 8
student obligations, 8
reinstatement after dismissal, 16
release of educational records information, 251–252
renewal, academic, 16
repeating courses
limitations on, 11
repeatable courses, 11
repeating courses previously passed, 11
report delayed (RD), 12
required GPA, 20
Reserve Officer Training Corps (ROTC), 250
residence classification, 6
residence classification appeal, 6
residency requirement, 64
resident, defined, 11
respiratory therapy
course descriptions, 203
major, 93–94
retail management
certificates, 38, 55
major, 72
occupational training certificates, 219–220
retest policy; assessment and placement, 8
rights and privacy act, 251
right to know rates, 252
S
SacBookRac, 27
sales, merchandising and marketing course descriptions, 139–140
schedule of classes, 8
scholastic honor, 15
school age child specialization certificate, 52
secondary education certificate of competency (high school program), 216
security, computer information systems, course descriptions, 147–148
security escort service, 21, 249
self-paced, multisensory learning aides, 214
semiautomatic arc welding
certificate, 53
occupational training certificate, 224
service learning
continuing education course descriptions, 245
credit course descriptions, 204
sexual harassment and sexual violence policy, 249
Short Stop, 27
sign language/interpreting
certificate, 52
course descriptions, 204–205
major, 94
skills certificates, 31, 54–62
small business management
major, 94
occupational training certificates, 220
smoking on campus, 250
SOA and web services professional certificate, 56
sociology course descriptions, 205–206
Solomon Amendment, 252
Sophia B. Clarke Theater, 27
sophomore, defined, 12
Spanish course descriptions, 206–207
special needs population job readiness skills
continuing education course descriptions, 245
occupational training certificate, 223
special studio arts courses, 130
speech course descriptions, 207–208
sports turf management
certificate, 52
major, 88
occupational training certificate, 218
SQL professional certificate, 56
Stadium, Hilmer Lodge, 27
stained glass production, continuing education course descriptions, 246
standards of conduct, 249–250
state preschool program, 21
student complaints, 250
student government, 21
student health services, 20
student obligations, 8
student rights and privacy act, 251
student right-to-know rates, 252
student services and student life
admissions and records, 18
advising center, 16, 112
assessment center, 18
Associated Students (AS) Student Government, 21
bridge program, 18
bursar’s office and photo ID, 18
CalWORKs (California Work Opportunities and Responsibility to Kids), 19
campus clubs and organizations, 21
CARE (Cooperative Agencies Resources for Education), 19
career and transfer services, 18
counseling center, 21
disabled student programs & services (DSP&S), 18–19
degree audit service, 19
extended opportunity programs and services (EOPS), 19
financial aid, 19–20
first year experience, 20
international student programs, 20
re-entry services, 20
security escort service, 21, 249
special needs population job readiness skills, 214
student health services, 20
student life center, 21
student life office/student center, 21
veterans’ services, 20
student services kiosks, 18
student services staff, 2–3
student unit limits, 11
studio arts courses
basic studio arts, 130
special studio arts, 130
three-dimensional studio arts, 131
two-dimensional studio arts, 131
Studio Theater, 28
study abroad program, 23
study techniques course descriptions, 208
SurfCAM
certificate, 62
occupational training certificate, 222
surveying course descriptions, 209
T
- teaching certificate, children’s program, 39–40
- team sports course descriptions, 194
- TECH Ed Resource Center (TERC), 24
- technology and health division, 4
- technology-related courses, 209
- telecommunications professional certificate, 57
- television production certificate, 52
- major, 94
- Test of English as a Foreign Language (TOEFL), 7
- theater arts
  - continuing education course descriptions, 246
  - credit course descriptions, 209–210
- theatrical costume certificate, 52
- theory, physical education course descriptions, 195–196
- three-dimensional studio arts course descriptions, 131
- traditional animation certificate, 35–36
- Training Source, 214
- transcripts, 16
- transfer curriculum (IGETC), 108–109
- Transfer Math Activities Resource Center (T-MARC), 23
- transfer to California colleges and universities programs of study leading to, 102
- transfer courses, defined, 112
- transfer requirements, 103, 109
- university transfer major options, 102
- transportation course descriptions, 210
- tree care and maintenance certificate, 52
- occupational training certificate, 218
- tutorial services, 3, 24
- tutor training course descriptions, 210
- two-dimensional studio arts course descriptions, 131–132

U
- United States Armed Forces Institute, credits earned through, 15
- unit limits, 11
- unit of credit, defined, 12
- University of California (UC)
  - branch locations, 107
  - credit for physical education activity courses, 112
  - credit pending, 112
  - intersegmental general education transfer curriculum (IGETC), 108–109
  - minimum admission requirements, 107
  - transfer requirements, 109
  - transfer/UC credit limitations, 112
- V
- values, of the college, 1
- veterans’ services, 20
- veterinary technology major, 92–93
- vision, of the college, 1
- visual basic programming professional certificate, 57
- W
- water technology certificate, 53
- course descriptions, 210
- web applications, course descriptions, 148
- web page design certificate, 53
- web programming professional certificate, 57
- web site addresses
  - application for graduation form, 64
  - California State University, 103
- international student application materials, 7
- registration, 8
- transcripts, 16
- University of California, 107
- welder, occupational training certificates, 223
- licensed welder, 223
- welder with concentration in automotive welding, cutting, & modification, 224
- welder with concentration in gas tungsten arc welding, 224
- welder with concentration in semiautomatic ARC welding, 224
- welding certificates, 53, 62
- continuing education course descriptions, 246
- course descriptions, 210–211
- major, 95
- welding technologies, occupational training certificate, 223–224
- wildlife sanctuary, 28
- Windows operating system administration professional certificate, 55
- withdrawal
  - from classes, 12
  - from the college, 11
- with honors, 15
- woodworking, continuing education course descriptions, 246
- work experience education, 23
- workplace competencies certificate, 55
- Writing Center, 23
- W (withdrawal), 12
...the Future is Now!

The images displayed on the covers of this Catalog highlight the eclectic mix of historic, traditional and contemporary architecture as well as the horticultural gems that one sees on Mt. SAC's sprawling 420-acre campus. Not only is Mt. SAC one of California's largest college campuses, it is fast becoming an aesthetic treasure.

Nested below the San Jose Hills with Mt. San Antonio (Mt. Baldy) looming above, the campus is undergoing a major transformation with new and renovated facilities, tasteful landscaping, high-tech laboratories, and "greener" operating systems, thanks to construction bonds passed by local voters.

This comprehensive campus improvement effort speaks to Mt. SAC's commitment to build for the future by providing an inviting state-of-the-art environment that fosters innovative instruction and learning.