ACKNOWLEDGMENTS

Much appreciation to the following individuals for their contributions to this Catalog:

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The Catalog is available in alternate formats (Braille, enlarged text, e-text, etc.) upon request. Please contact Disabled Student Programs & Services at (909) 274-4290.
ACCREDITATION

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

CATALOG CONTENT CHANGES

Mt. San Antonio College has made every effort to ensure 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 Catalog does not constitute a contract or terms of a contract between the student and the College.

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

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

www.mtsac.edu
Welcome to Mt. San Antonio College!

Your educational journey is one of the most important you will take in your lifetime. As you can see in the 2015-16 College Catalog, we are your unwavering partner in success. This catalog is a compilation of courses, programs, support services, degree offerings, and transfer information that you will need to chart your course to academic success. All of this represents our commitment to provide you the finest education and support services.

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

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

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

Dr. William T. Scroggins  
President & CEO

BOARD OF TRUSTEES
Dr. Manuel Baca  
Rosanne M. Bader  
Judy Chen Haggerty, Esq.  
Fred Chyr  
Dr. David K. Hall  
Robert F. Hidalgo  
Laura Santos  
Elizabeth Santos, Student Trustee
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# 2015-16 College Calendar

## Summer Intersession 2015 — 6 Weeks

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<td>June 22</td>
<td>2015 Summer Intersession begins</td>
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<tr>
<td>July 3-4</td>
<td>Independence Day (campus closed)</td>
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<td>July 15</td>
<td>Registration begins for 2015 Fall Semester</td>
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<tr>
<td>August 2</td>
<td>2015 Summer Intersession ends</td>
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## Fall Semester 2015 — 16 Weeks

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<td>2015 Fall Semester begins</td>
</tr>
<tr>
<td>September 4</td>
<td>Last day to add a class</td>
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<tr>
<td>September 4</td>
<td>Last day to change residency for 2015 Fall Semester</td>
</tr>
<tr>
<td>September 7</td>
<td>Labor Day (campus closed)</td>
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<tr>
<td>October 5</td>
<td>Last day to petition for Fall Semester graduation</td>
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<tr>
<td>November 3</td>
<td>International Student Application Due for 2016 Spring Semester</td>
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<tr>
<td>November 10</td>
<td>Registration begins for 2016 Winter Intersession</td>
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<tr>
<td>November 11</td>
<td>Veteran's Day (campus closed)</td>
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<tr>
<td>November 26</td>
<td>Thanksgiving Recess (campus closed)</td>
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<tr>
<td>December 4</td>
<td>Last day to petition for Winter Intersession graduation</td>
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<td>Final Exams (see: <a href="http://www.mtsac.edu/finalexams">www.mtsac.edu/finalexams</a> for schedule)</td>
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<td>December 13</td>
<td>2015 Fall Semester ends</td>
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<td>December 13 - January 3</td>
<td>Winter Recess for students</td>
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2015-16 College Calendar

Winter Intersession 2016 — 6 Weeks

January 1, 2016  New Year’s Day (campus closed)
January 4      2016 Winter Intersession begins
January 13     Registration begins for 2016 Spring Semester
January 18     Martin Luther King, Jr. Day (campus closed)

February 12    Lincoln's Birthday (campus closed)
February 14    2016 Winter Intersession ends
February 15    President’s Day (campus closed)

Spring Semester 2016 — 16 Weeks

February 22    2016 Spring Semester begins
March 31       Cesar Chavez Day Observed (campus closed)

April 4        International Student Application Due for 2016 Summer Intersession
May 11        Registration begins for 2016 Summer Intersession
May 30        Memorial Day (campus closed)

June 6        International Student Application Due for 2016 Fall Semester
June 6 - 11   Final Exams (see: www.mtsac.edu/finalexams for schedule)
June 10       Commencement
June 12       2016 Spring semester ends
# COLLEGE DIRECTORY

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

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<td>*Library &amp; Learning Resources Division</td>
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<td>Mountaineer</td>
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<td>*Paralegal</td>
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Performing Arts Operations                5623
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*Physical Therapy Aide                    4750
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*Teacher Prep Institute                   4850
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*Instructional programs and departments
SECTION 1

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

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

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

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

**HISTORY**

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

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

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

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

Mt. SAC has emerged as a leader in education not only in the San Gabriel Valley, but in the state. It is California's largest, single-campus community college with a combined Credit, Continuing Education, and Community Service student enrollment of over 65,000. In 2015 Mt. SAC proudly celebrated 69 years of educational excellence. The College will continue to offer access to quality programs and services as well as provide an environment for educational excellence throughout the 21st Century.

**MISSION, VISION AND VALUES**

**Mission**

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

**Vision**

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

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

**Core Values**

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

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

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

- **STUDENT FOCUS**
  We address the needs of students and 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.
## COLLEGE ORGANIZATION

### BOARD OF TRUSTEES

- **President**: Fred Chyr
- **Vice President**: Dr. David K. Hall
- **Clerk**: Judy Chen Haggerty, Esq.
- **Member**: Rosanne Bader
- **Member**: Dr. Manuel Baca
- **Member**: Robert F. Hidalgo
- **Student Trustee**: Elizabeth Santos
- **College President & CEO**: Dr. William Scroggins

### ADMINISTRATION

#### Administrative Services

- **Vice President, Administrative Services**: Michael Gregory
- **Associate Vice President, Fiscal Services**: Rosa Royce
- **Director, Accounting**: Shelly Zahrt-Egbert
- **Director, Bookstore and Operations**: Suzanne Luetjen
- **Manager, Bursar's Office**: Sheree Culross
- **Manager, Custodial Services**: Ken McAlpin
- **Director, Facilities Planning and Management**: Gary Nellesen
- **Assistant Director, Facilities Planning and Management**: Bill Asher
- **Manager, Facilities Support Services**: Becky Mitchell
- **Construction Project Manager**: Roger Sneed
- **Director, Fiscal Services**: Monica Cantu
- **Interim Director, Grounds and Transportation**: Ruben Avila Jr.
- **Director, Payroll**: Richard Lee
- **Chief, Public Safety**: David Wilson
- **Deputy Chief, Public Safety**: Robert Wren
- **Director, Purchasing**: Teresa Patterson
- **Director, Safety and Risk Management**: Karen Saldana
- **Director, Technical Services**: William Eastham

#### Human Resources

- **Vice President, Human Resources**: James Czaja
- **Director, Human Resources**: Cynthia Hoover
- **Director, Equal Employment Opportunity**: Lorraine Jones

#### Information and Educational Technology

- **Chief Technology Officer**: Victor Belinski
- **Director, Enterprise Applications Systems**: Robert Hughes
- **Director, Academic Technology and Infrastructure**: Dale Vickers
- **Interim Assistant Director, Academic Technology and Infrastructure**: Ron Bean
- **Manager, Data and Network Security**: Chris Schroeder

#### President’s Office

- **Director, Marketing & Communication**: Uyen Mai
- **Director, Public Affairs**: Jill Dolan
- **Executive Director, Mt. SAC Foundation**: Bill Lambert

#### Instruction

- **Vice President, Instruction**: Dr. Irene Malmgren
- **Executive Dean, Instructional Services**: Joumana McGowan
- **Associate Dean, Instructional Services**: Don Scione
- **Dean, Arts Division**: Dr. Susan Long
- **Associate Dean, Arts Division**: Mark Lowentritt
- **Dean, Business Division**: Jennifer Galbraith
- **Associate Dean, Business Division**: Vacant
- **Director, Child Development Center**: Tamika Addison
- **Dean, Humanities and Social Sciences Division**: James Jenkins
- **Associate Dean, Humanities and Social Sciences Division**: Dr. Jeanne Marie Velickovic
- **Director, Writing Center**: Dr. David Charbonneau
- **Dean, Kinesiology, Athletics and Dance Division**: Joseph Jennum
- **Associate Dean, Kinesiology, Athletics and Dance Division**: Debbie Cavion
- **Dean, Library and Learning Resources Division**: Meghan M. Chen
- **Director, Learning Assistance Center**: Bailey Smith
- **Dean, Natural Sciences Division**: Matthew Judd
- **Associate Dean, Natural Sciences Division**: Jemima Blake-Judd
- **Dean, Technology and Health Division**: Vacant
- **Associate Dean, Technology and Health Division**: Vacant
- **Dean, School of Continuing Education**: Vacant

#### Academic Technology and Infrastructure

- **Director, Academic Technology and Infrastructure**: Dale Vickers
- **Director, Enterprise Applications Systems**: Robert Hughes
- **Director, Academic Technology and Infrastructure**: Dale Vickers
- **Interim Assistant Director, Academic Technology and Infrastructure**: Ron Bean
- **Manager, Data and Network Security**: Chris Schroeder
The College

ADMINISTRATION (continued)

Student Services Ext. 4505
Vice President, Student Services ................................................................. Dr. Audrey Yamagata-Noji
Dean, Counseling ......................................................................................... Thomas Mauch
Dean, Student Services .............................................................................. Carolyn Keys
Dean, Enrollment Management ................................................................. Dr. George Bradshaw
Assistant Director, Admissions and Records ............................................ Patricia Montoya
Director, Assessment and Matriculation ...................................................... James Ocampo
Director, CalWORKS .................................................................................. Dr. Stephen Brown
Director, Career and Transfer Services ..................................................... Vacant
Director, Disabled Student Programs and Services (DSP&S) ..................... Grace Hanson
Manager, Deaf and Hard of Hearing Services ........................................... Don Potter
Director, Extended Opportunity Programs and Services (EOPS) ............... Irene Herrera
Director, Health Services .......................................................................... Marguerite Whitford
Director, Student Life .................................................................................. Andrea Sims
Director, TRiO Program ................................................................. Dr. Zolita Fisher

INSTRUCTIONAL DIVISIONS

Arts Division Ext. 5200
Dr. Sue Long, Dean
Mark Lowentrout, Associate Dean
The Arts Division is comprised of four educational departments offering numerous degrees and certificates that provide students with the knowledge and training necessary for transferring to a university or fulfilling career opportunities in the arts. The division houses an acclaimed art gallery and supports the new state-of-the-art Design Technology Center. The division offers 6 Associate in Science degrees, 2 Associate in Arts degrees, 2 Associate in Arts for Transfer degrees, and 17 Certificates of Achievement.

The Arts Division’s educational departments and program areas are:
- Fine Arts (Drawing, Figure, Painting, Sculpture, Ceramics)
- Commercial & Entertainment Arts (Animation & Gaming, Graphic Design & Illustration, Photography, Radio & Television)
- Music (Theory, Choral, Instrumental)
- Theater (Acting, Design & Technical, Playwriting)
- Art Gallery (Gallery Design and Operations)

INSTRUCTIONAL DIVISIONS

Business Division Ext. 4600
Jennifer Galbraith, Dean
Vacant, Associate Dean
The Business Division’s educational programs and services are designed to respond to the changing trends, needs, and job requirements of the community, state, and national economy while ensuring a high quality of education. The division offers 20 Associate in Science degrees, 2 Associate in Arts degrees, and 69 Certificates. The Business Division also includes the services of the new Child Development Center and the Center of Excellence.

The Business Division’s educational departments and their program areas are:
- Accounting and Management (Accounting, Business Management, Business Office Communications, and Marketing & Sales)
- Business Administration (Paralegal Studies, Real Estate, Economics, and Business Law)
- Child Development

School of Continuing Education Division Ext. 4220
Dr. Madelyn Arballo, Associate Dean
Dr. Liza Becker, Associate Dean
School of Continuing Education provides a variety of noncredit courses and certificates as well as an array of fee-based, not-for-credit community services classes and contract training. The Division offers 9 Certificate of Competency and 48 Certificates in Occupational Training. The division provides assessment for placement, orientation, registration, educational advising, and counseling services embedded within its programs.

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

#### Humanities and Social Sciences Division

**James Jenkins, Dean**

**Dr. Jeanne Marie Velickovic, Associate Dean**

The Humanities and Social Sciences Division provides students with a broad selection of general education courses in language arts, humanities, and social sciences. It offers 2 Associate in Science degrees, 4 Associate in Arts degrees, 7 Associate in Arts for Transfer degrees and one Certificate of Achievement. The Division publishes the student newspaper and magazine and houses the Honors program, the Study Abroad program, Teacher Preparation Institute, Writing Center, and Speech & Sign Success Center.

The Humanities and Social Sciences Division’s educational departments and their programs are:

- American Language
- Communication (speech and forensics)
- English, Literature and Journalism (English, journalism, literature and Latin)
- Foreign Languages (Arabic, Chinese, French, German, Italian, Japanese and Spanish)
- History and Art History (history, art history and humanities)
- Geography and Political Science
- Psychology
- Sign Language (American Sign Language and interpreting)
- Sociology and Philosophy

#### Kinesiology, Athletics and Dance Division

**Joe Jennum, Dean/Athletics Director**

**Debbie Cavion, Associate Dean /Associate Athletics Director**

The Kinesiology Athletics and Dance Division has been a leader among community colleges for over 60 years. Our division provides a wide range of opportunities within the disciplines of kinesiology, wellness, fitness, coaching, athletic training and dance, as well as fielding 20 competitive teams. The Division offers one Associate in Science degree, one Associate in Arts degree and 5 Certificates. The Division also houses the WIN student athlete academic resource center, Exercise Science/Wellness Center and Athletics and Dance venues throughout the campus.

The Kinesiology Athletics and Dance Division’s educational departments and their programs areas are:

- Dance (Theory and Activity)
- Kinesiology (Adaptive, Aquatics, Athletics, Fitness, Individual, Team Sports, and Theory)

#### Library and Learning Resources Division

**Meghan M. Chen, Dean**

**Bailey Smith, Director, Learning Assistance Center**

The Library and Learning Resources Division offers services in the Learning Assistance Center, the Library, Tutorial Services and the Distance Learning Program which provide academic support for all students at the College. Faculty teaching distance learning courses are also supported by the division’s Online Learning Support Center.

Housed in the Learning Technology Center, the Library and Learning Resources Division’s educational departments and their program areas are:

- Learning Assistance (Reading, Study Skills, Learning Communities, and Basic Skills Math)
- Library
**STUDENT SUCCESS AND SUPPORT PROGRAM**

Recognizing that student success is the responsibility of both the college and the student, the Student Success and Support Program was established to assure that students who attend a California Community College are given the best possible opportunity to succeed in accomplishing their academic goals. To accomplish this, the college will assure that appropriate services are provided to students to enhance their success. As a student, you must identify your academic goal and course of study as well as complete required core services including Assessment, Orientation and Educational Planning. Below are the important steps to follow to begin your academic career including information on the services you are required to participate in.

**Step 1 – Apply to Mt. SAC**

Complete and submit a Mt. SAC Admission Application at [www.mtsac.edu/apply](http://www.mtsac.edu/apply). Computers are available in the Student Services Center for your convenience. For further information, contact Admissions Office at (909) 274-4115 or visit [www.mtsac.edu/admissions](http://www.mtsac.edu/admissions).

**Step 2 – Apply for Financial Aid**

Mt. SAC offers a variety of financial aid programs funded by federal and state agencies and private sources, including grants, fee waivers, work-study opportunities, scholarships, and loans. For further information, contact the Financial Aid Office at (909) 274-4450 or visit [http://www.mtsac.edu/financialaid](http://www.mtsac.edu/financialaid).

**Step 3 – Attend Placement Test Information Sessions**

The sessions will prepare students to take the required placement tests and provide an opportunity for students to ask questions regarding the tests. For further information, contact the Assessment Center at (909) 274-4265 or visit [www.mtsac.edu/assessment](http://www.mtsac.edu/assessment).

**Step 4 – Get Assessed**

Students attending Mt. San Antonio College are required to participate in assessment. The assessment and placement process has been established to enable all students an opportunity to be successful in their course work. For further information, contact the Assessment Center at (909) 274-4265 or visit [www.mtsac.edu/assessment](http://www.mtsac.edu/assessment).

**Step 5 – Attend New Student Orientation**

At orientation, a counselor will review placement test scores and help you select your courses based on your test scores. Counselors will also review graduation and university transfer requirements. You will also create your Mountie Academic Plan (MAP). For further information, contact the Counseling Center at (909) 274-4380 or visit [www.mtsac.edu/counseling/orientation.html](http://www.mtsac.edu/counseling/orientation.html).

**Step 6 – Get Counseling**

Counselors are available to help if you:

a. are undecided about your major or career goal,

b. need assistance in planning your educational and/or career goal,

c. need assistance in choosing a university or college for transfer, or

d. have personal problems that impact your college success.

For further information, contact the Counseling Center at (909) 274-4380 or visit [www.mtsac.edu/counseling](http://www.mtsac.edu/counseling).

**Step 7 – Register Online**

Register online, based on your assigned registration date/time. Check your registration date on your portal account at [https://my.mtsac.edu](https://my.mtsac.edu).

**Step 8 – Pay Fees**

You can pay your fees online with a credit card (MasterCard, Visa, Discover, American Express) or in person at the Bursar’s Office (Lower Level – Bldg 4). For further information, contact the Bursar’s Office at 909-274-4960 or visit [www.mtsac.edu/bursars](http://www.mtsac.edu/bursars).

**ADMISSION AND REGISTRATION**

**Admissions**

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

**Application to the College**

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

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

**Residency Requirements (for fee purposes)**

**Residency Guidelines**

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

**Residence Classification**

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

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

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

**Criteria for Determination of Legal Residence**

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

1. Every person has, by law, a residence.
2. Every person who is married or 18 years of age or older, and under no legal disability to do so, may establish residence.
3. In determining the place of residence, the following rules are to be observed:
   a. There can be only one residence.
   b. A residence is the place where one remains when not called elsewhere for labor or other special or temporary purposes, and to which that person returns in seasons of repose.
   c. A residence cannot be lost until another is gained.
   d. The residence can be established and/or changed only by the union of act and intent.


**Student Success and Support Program**

- 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.
- 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.
- The residence of an unmarried minor who has a living parent cannot be changed by his or her own act, by the appointment of a legal guardian, or by relinquishment of a parent's right of control, unless the student qualifies for the self-supporting exception.

**Burden of Proof**

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

**Residence Classification Appeal**

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

**Concurrent Enrollment for K-12 Students** (Special Admits)

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

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

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

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

A parent/guardian approval form allowing the student to participate must be submitted as part of the application process. 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. Students are advised to contact their high school counselor.

**Evaluation of Other College Coursework**

Mt. San Antonio College reserves the right to evaluate work completed at other regionally accredited colleges and universities. Transfers with acceptable grades will be granted advanced standing insofar as the work corresponds with the curriculum of this institution or the lower-division work offered in accredited colleges or universities. Each applicant should file with Admissions and Records an official transcript of their records from all colleges and universities previously attended. For information regarding military credit, see Section 3 in this Catalog.

It is the student's responsibility to request the evaluation of official transcripts from other colleges. Students will need to request an evaluation upon submission of their graduation petition. This may be accomplished by submitting a completed “Evaluation Request” form at Admissions and Records.

Students planning to use courses taken at other colleges for placement in Mt. San Antonio College courses who did not have transcripts sent to Admissions and Records must bring official copies of their transcripts prior to their registration appointment.

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

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

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

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

The College reserves the right to deny acceptance of any course for the purpose of General Education, Associate Degree graduation requirements, or subject requirements. If denied, the student may petition for an in-depth evaluation but will be required to provide official course information from the institution of record or from the college/university catalog.

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

**Acceptance of International Coursework from Accredited Colleges and Universities outside the United States**

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

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

Official Transcripts must be accompanied by evaluation documents provided by an approved credential evaluation agency.
Articulation with High Schools, ROPs, and Adult Schools

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

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

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

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

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

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

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

For more information on articulations with high schools, ROPs and adult schools, please contact the CTE Transitions Office, Bldg. 210, at (909) 274-5252.

Admission of International Students

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

- Mt. SAC Application for Admission
- International (F-1 Visa) Student Application
- Application processing fee of $50.00 (Must be paid in U.S. currency (check or money order) made payable to Mt. San Antonio College. Personal checks must have the accountholder’s name and address preprinted on them.
- Confidential Financial Support documents
- Qualifying score from one of the following College approved tests:
  1) TOEFL (minimum score of 133 on the computer-based test, or 450 on the paper-based test, or a score of 45 on the Internet-based test). Information regarding TOEFL may be obtained at www.toefl.org. If you are mailing your score directly, our institution code is “4494”.
  2) IELTS (overall band score of 4.5 or higher). Information regarding IELTS may be obtained at www.ielts.org.
  3) Mt. SAC’s AWE (Assessment of Written English) - Placement in AMLA 41W or higher. Information regarding the AWE may be obtained at www.mtsac.edu/students/assessment.
- 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 school year are as follows:

<table>
<thead>
<tr>
<th>Application Deadline</th>
<th>Classes Begin</th>
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<tbody>
<tr>
<td>Fall Semester</td>
<td>First Monday of June</td>
</tr>
<tr>
<td>Summer Intersession</td>
<td>First Monday of April</td>
</tr>
<tr>
<td>Spring Semester</td>
<td>First Monday of November</td>
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</table>

F-1 Visa students can obtain all application materials from our College Website at http://www.mtsac.edu/international/index.html. TOEFL scores, IELTS scores, admission applications (both college and International Student Application), and all supporting materials must be received on or before the term deadlines listed above. Students will be required to take the Assessment of Written English (AWE) when they arrive at Mt. San Antonio College. Applications received after the deadline will be considered for the following semester. The application fee must accompany the admission application. (AP 5010)

Registration

Registration for classes is conducted 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 credit, noncredit and continuing education courses, is available on the Mt. SAC website at www.mtsac.edu/schedule. The College reserves the right to cancel, reschedule or combine classes and to change professors where such action is deemed necessary.

Enrollment Fees and Expenses

Students are charged an enrollment fee of $46 per unit and a mandatory Health Services fee for each term at Mt. San Antonio College. A Student Representation fee and an optional Student Activities fee are collected for Fall and Spring semesters only. In addition to these fees, non-resident and international students are also charged a fee of $227 per unit. Students who participate in the student parking lots are required to have a valid Student Parking Permit which can be purchased online through the student portal. Fees are subject to change.

Financial aid, scholarships and Board of Governors Fee Waiver (BOGW) may be applied for at the Financial Aid Office prior to paying the college fees. Students are responsible for purchase of their own textbooks and supplies. Costs for books and supplies for full-time students may average $300-$600 per semester depending on the program of study selected.

Student Representation Fee

The Student Representation Fee is a mandatory fee that is collected during fall and spring registration for the purpose of providing Mt. SAC students the means to state their positions and viewpoints before city, county, district, and state government agencies. A student may choose not to pay the Student Representation Fee for political, religious, financial, or moral reasons. If a student chooses to opt-out of paying the fee for the stated reasons, the student must: 1) visit the Student Life Office in Building 9C or http://as.mtsac.edu to get the opt-out form; 2) complete the form and; 3) return it to the Bursar’s Office prior to paying the college fees.
Student Success and Support 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/Receipt. If the student's class has been officially dropped, or cancelled by the College, the student will receive a refund. Please see the current Schedule of Classes for refund information.

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

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

Student Obligations
Mt. San Antonio College will withhold grades, transcripts, diplomas, and registration privileges, or any combination thereof, from any student or former student who fails to pay a valid financial obligation to the College (e.g., returned check, unpaid enrollment fees, unpaid loan, equipment breakage, unpaid library fine, etc.). The hold shall be released when the student satisfactorily meets the financial obligation. When an outstanding financial obligation owed to the College is sent to our collection agency, former students who fail to pay a valid financial obligation to the College will not be allowed to transact College business until the hold is satisfied. (BP 5035, AP 5035)

ASSESSMENT AND PLACEMENT
Students attending Mt. San Antonio College are required to participate in assessment. The assessment and placement process has been established to enable all students an opportunity to achieve probable success in their course work. In addition, the process allows the faculty to instruct their courses at an appropriate level with the knowledge that students will be reasonably prepared. For more information, visit http://www.mtsac.edu/assessment

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

Test Information Sessions
The sessions will prepare students to take the English and Math placement test and provide an opportunity for students to ask questions. The information sessions will also provide strategies and resources. For further information, contact the Assessment Center at (909) 274-4265 or visit www.mtsac.edu/assessment

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

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

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

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

Reading Placement
The College utilizes the Degrees of Reading Power (DRP) and COMPASS/ESL reading tests to assess student reading skills. Based on the results of the reading test, the student will be placed in an appropriate reading course. Please be advised that the reading competency requirement for graduation can be met by attaining eligibility for READ 100.

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

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

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

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

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

ORIENTATION – CREDIT STUDENTS
Orientation is required for all new students who are enrolling in Mt. San Antonio College. Orientation includes information regarding college programs, services, procedures, student responsibilities, and other related information.

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

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

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

EXEMPTION FROM ASSESSMENT, ORIENTATION, AND COUNSELING, ADVISING, OR EDUCATION PLAN DEVELOPMENT

A student is exempt from assessment, orientation, and counseling, advising, or education plan development if the student has:

1. completed an Associated degree or higher from a regionally accredited institution;
2. enrolled at the College for a reason other than career development or advancement, transfer, attainment of a degree, or certificate of achievement, or completion of a basic skills, or English as a Second Language course sequence;
3. completed these services at another community college within a time period identified by the College;
4. enrolled at the College solely to take a course that is legally mandated for employment as defined Section 55000 or necessary in response to a significant change in industry or licensure standards;
5. enrolled at the College as a special admit student pursuant to Education Code section 76001.

PREREQUISITES, COREQUISITES, AND ADVISORIES

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

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

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

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

CHALLENGING PREREQUISITES AND COREQUISITES

In accordance with Title 5 Section 55003(p) and (q), Student Challenge of Prerequisites or Corequisites, students may challenge a prerequisite or corequisite for a course. A prerequisite or corequisite cannot be “waived,” but students have the ability to demonstrate that they meet the prerequisite or corequisite on the following criteria, and course eligibility may be granted. The challenge must be based on at least one of the following specific grounds:

1. The College will accept prerequisite or corequisite courses from regionally accredited colleges and universities in the United States. (The student will meet with the appropriate department chair)
2. A student may request a prerequisite or corequisite variance to demonstrate that the student has the knowledge or ability equivalent to the prerequisite or corequisite for the course in question, but has not formally met the established prerequisite or corequisite. (The student will meet with the appropriate department chair)
3. The prerequisite or corequisite course has not been made reasonably available, and waiting until the prerequisite or corequisite is offered will create an undue delay in meeting educational goals. (The student will meet with the Director of Assessment and Matriculation)
4. The prerequisite or corequisite is being applied in a discriminatory manner. (The student will meet with the Director of Assessment and Matriculation)
5. The prerequisite violates the provisions of the State Education Code. (The student will meet with the Director of Assessment and Matriculation)
Academic Policies and Requirements
ACADEMIC POLICIES AND REQUIREMENTS

For detailed information regarding Mt. San Antonio College Board of
Trustees Policies (BP) and Administrative Procedures (AP), go to
http://www.mtsac.edu/governance/trustees/policies.html

ACADEMIC FREEDOM
It is the policy of Mt. San Antonio College to maintain and encourage freedom
for its faculty, within the law, of inquiry, teaching and research, and the pur-
suit 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. (BP 4030, AP 4030)

ATTENDANCE AND ENROLLMENT

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

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

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

Professors may drop students from their class rolls through the last
day of the tenth week of instruction of a regular semester for excessive
absence as defined by the professor or at an earlier date for intersession
or short-term classes.

Students on college-authorized field trips will not be penalized for
absences incurred in other classes during the field trips (AP 4300).

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
It is the students’ responsibility to drop or withdraw from courses they no
longer attend. Students should check their schedule/receipt, available on
the “My Mt SAC” portal for information regarding key dates. Dates vary
and are often course specific.

Full 16-week courses
For 16 week courses, students who drop a class, withdraw from the
college, or are dropped from a class by the professor by the Sunday at
the end of the second week of classes will not receive any mark or notation
on their permanent academic record.

Students who drop a class, withdraw from the college, or are dropped
by the professor beginning Monday of the third week of a 16 week class
will receive a mark of “W” (Withdrawal) on their permanent record.

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

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

Intersections and other short term classes
For short term classes, students who drop a class, withdraw from college
or are dropped from a class by the professor prior to the conclusion of
the first 20% of the class will not receive any mark or notation on their
permanent record.

Students who drop a class, withdraw from the college, or are dropped
by the professor after 20% of the class has elapsed will receive a mark of
“W” (Withdrawal) on their permanent record.

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

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

Student Unit Limits
Students may enroll in a maximum of 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 are required to see a counselor as part of the petition pro-
cess. Petitions are available in the Counseling Office, located on the upper
level of the Student Services Center.

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

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

The following types of courses may be repeatable:

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

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

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

Limitations on Repeating Courses
Students who have recorded a mark of W, D, F, No Credit or No Pass
will only be allowed to repeat the same course two times, for a total
maximum enrollment of three times. The student’s permanent academic
### Academic Policies and Requirements

record will be annotated such that all course work that has been taken and forgiven or repeated will remain legible, insuring a true and complete academic history.

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

### Petitions for Exceptional Action

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

### Definitions

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

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

### Catalog Rights

A student may use that initial catalog year or any subsequent catalog 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.

### Catalog Rights

A student may use that initial catalog year or any subsequent catalog year they entered or any catalog thereafter, as long as the student maintains in continuous enrollment.

**A student may use that initial catalog year or any subsequent catalog year they entered or any catalog thereafter, as long as the student maintains in continuous enrollment.**

### Catalog Rights

A student may use that initial catalog year or any subsequent catalog year they entered or any catalog thereafter, as long as the student maintains in continuous enrollment.

**A student may use that initial catalog year or any subsequent catalog year they entered or any catalog thereafter, as long as the student maintains in continuous enrollment.**

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

### Grading System

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

**Incomplete**

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

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

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

**W — Withdrawal:** Withdrawal from a class or classes shall be authorized through the last day of the 10th week of instruction of a regular semester-length class. No notation (“W” or other) shall be made on the academic record of the student who withdraws during the first three weeks of a regular semester-length class. Withdrawal between the first day of the 4th week and the last day of the 10th week of instruction shall be recorded as a “W” on the student's record. The “W” shall not be used in calculating grade point averages, but excessive “W’s” shall be used as factors in probation and dismissal procedures. Withdrawal from short term classes of less than semester length, but greater than six weeks, is authorized for a period of time through 60% of the course, and a mark of “W” shall be made on the student's academic record. No notation shall be made on the academic record of a student who withdraws from a short term class of less than semester length, but greater than six weeks, provided the student withdraws no later than the end of the first 20% of the course.

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

### Final Examinations

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

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

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

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

**Credit by Examination**
The general philosophy of Mt. San Antonio College is that the interaction which takes place between the student and professor is of critical importance to the learning process. However, quality instruction places a premium on meeting individual student needs. Therefore, Mt. San Antonio College provides for Credit by Examination enabling the student to accelerate his/her educational program by providing opportunity to obtain credit in those fields in which he/she has already achieved proficiency independently or by informal means. (BP 4235, AP 4235)
### CREDIT BY EXAMINATION (CONTINUED)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
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<tbody>
<tr>
<td>WELD 40</td>
<td>Introduction to Welding</td>
</tr>
<tr>
<td>WELD 50</td>
<td>Oxyacetylene Welding</td>
</tr>
<tr>
<td>WELD 51</td>
<td>Basic Electric Arc Welding</td>
</tr>
<tr>
<td>WELD 53A</td>
<td>Welding Metallurgy</td>
</tr>
<tr>
<td>WELD 70A</td>
<td>Beginning Arc Welding</td>
</tr>
<tr>
<td>WELD 70B</td>
<td>Intermediate Arc Welding</td>
</tr>
<tr>
<td>WELD 70C</td>
<td>Certification for Welders</td>
</tr>
</tbody>
</table>

#### Aircraft Maintenance Technician and Manufacturing Technology

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>MFG 11</td>
<td>Manufacturing Processes I</td>
</tr>
<tr>
<td>MFG 12</td>
<td>Manufacturing Processes II</td>
</tr>
<tr>
<td>MFG 15</td>
<td>AutoCAD 2D</td>
</tr>
<tr>
<td>MFG 17</td>
<td>3-D CAD Mechanical Modeling</td>
</tr>
<tr>
<td>MFG 19</td>
<td>Parametric Solid Modeling for Manufacturing</td>
</tr>
<tr>
<td>MFG 25</td>
<td>Advanced Parametric Solid Modeling</td>
</tr>
<tr>
<td>MFG 27</td>
<td>Auto Desk Inventor</td>
</tr>
<tr>
<td>MFG 38</td>
<td>MasterCAM I</td>
</tr>
<tr>
<td>MFG 38B</td>
<td>Advanced MasterCAM</td>
</tr>
<tr>
<td>MFG 38C</td>
<td>MasterCAM Solids</td>
</tr>
<tr>
<td>MFG 39</td>
<td>SurfCAM I</td>
</tr>
<tr>
<td>MFG 39B</td>
<td>SurfCAM II</td>
</tr>
<tr>
<td>MFG 38</td>
<td>Blueprint Reading for Manufacturing</td>
</tr>
<tr>
<td>MFG 70</td>
<td>Technical Mathematics</td>
</tr>
<tr>
<td>MFG 85</td>
<td>Manual Computerized Numerical Operations</td>
</tr>
</tbody>
</table>

#### Architecture & Engineering Design Technology

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARCH 101</td>
<td>Design I - Elements of Design</td>
</tr>
<tr>
<td>ARCH 121</td>
<td>CADD and Digital Media Level I</td>
</tr>
<tr>
<td>ARCH 141</td>
<td>Architectural Drawing</td>
</tr>
<tr>
<td>ARCH 146</td>
<td>Architectural Drawings and Fabrications</td>
</tr>
<tr>
<td>ARCH 25</td>
<td>Architectural Working Drawings II</td>
</tr>
<tr>
<td>EDT 11</td>
<td>Technical Drawing</td>
</tr>
<tr>
<td>EDT 12</td>
<td>Technical Engineering Working Drawings</td>
</tr>
<tr>
<td>EDT 16</td>
<td>Basic CAD and Computer Application</td>
</tr>
<tr>
<td>IMSP 17</td>
<td>Legal Aspects of Construction</td>
</tr>
<tr>
<td>IMSP 67</td>
<td>Blue Print Reading</td>
</tr>
<tr>
<td>IMSP 70</td>
<td>Elements of Construction</td>
</tr>
<tr>
<td>IMSP 71</td>
<td>Construction Estimating</td>
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</table>

#### Electronics & Computer Technology

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>CNET 50</td>
<td>PC Servicing</td>
</tr>
<tr>
<td>CNET 52</td>
<td>PC Operating System</td>
</tr>
<tr>
<td>CNET 54</td>
<td>PC Troubleshooting</td>
</tr>
<tr>
<td>CNET 60</td>
<td>A+ Certification Preparation</td>
</tr>
<tr>
<td>CNET 62</td>
<td>Network + Certification Preparation</td>
</tr>
<tr>
<td>ELEC 11</td>
<td>Technical Applications in Microcomputers</td>
</tr>
<tr>
<td>ELEC 50A-B</td>
<td>Electronics Theory</td>
</tr>
<tr>
<td>ELEC 50A-L-B</td>
<td>Electronics Theory Laboratory</td>
</tr>
<tr>
<td>ELEC 51</td>
<td>Electronics Devices Theory</td>
</tr>
<tr>
<td>ELEC 51L</td>
<td>Electronic Devices Laboratory</td>
</tr>
<tr>
<td>ELEC 56</td>
<td>Digital Electronics</td>
</tr>
<tr>
<td>ELEC 56L</td>
<td>Digital Electronics Laboratory</td>
</tr>
<tr>
<td>ELEC 61</td>
<td>Electronic Assembly and Fabrication Laboratory</td>
</tr>
<tr>
<td>ELEC 76</td>
<td>Radio Telephone Communications</td>
</tr>
<tr>
<td>ELMA 65A-B</td>
<td>Mathematics of Electronics</td>
</tr>
</tbody>
</table>

#### Fire Technology

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>FIRE 1</td>
<td>Fire Protection Organization</td>
</tr>
<tr>
<td>FIRE 2</td>
<td>Fire Prevention Technology</td>
</tr>
<tr>
<td>FIRE 3</td>
<td>Fire Protection Equipment and Systems</td>
</tr>
<tr>
<td>FIRE 4</td>
<td>Building Construction for Fire Protection</td>
</tr>
<tr>
<td>FIRE 5</td>
<td>Fire Behavior and Combustion</td>
</tr>
<tr>
<td>FIRE 6</td>
<td>Hazardous Materials/ICS</td>
</tr>
<tr>
<td>FIRE 7</td>
<td>Fire Fighting Tactics and Strategy</td>
</tr>
<tr>
<td>FIRE 8</td>
<td>Fire Company Organization and Management</td>
</tr>
<tr>
<td>FIRE 9</td>
<td>Fire Hydraulics</td>
</tr>
<tr>
<td>FIRE 10</td>
<td>Arson and Fire Investigation</td>
</tr>
<tr>
<td>FIRE 11</td>
<td>Fire Apparatus and Equipment</td>
</tr>
<tr>
<td>FIRE 20</td>
<td>Fire Instructor 1A</td>
</tr>
<tr>
<td>FIRE 21</td>
<td>Fire Instructor 1B</td>
</tr>
<tr>
<td>FIRE 30</td>
<td>Fire Instructor 1</td>
</tr>
<tr>
<td>FIRE 40</td>
<td>Fire Prevention 1A</td>
</tr>
<tr>
<td>FIRE 41</td>
<td>Fire Prevention 1B</td>
</tr>
<tr>
<td>FIRE 50</td>
<td>Fire Command 1A</td>
</tr>
<tr>
<td>FIRE 51</td>
<td>Fire Command 1B</td>
</tr>
<tr>
<td>FIRE 60</td>
<td>Fire Investigation 1A</td>
</tr>
<tr>
<td>FIRE 61</td>
<td>Fire Investigation 1B</td>
</tr>
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</table>

#### Industrial Design Engineering

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
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<tbody>
<tr>
<td>IDE 120</td>
<td>Introduction to CAD</td>
</tr>
<tr>
<td>IDE 130</td>
<td>Shop Processes</td>
</tr>
<tr>
<td>IDE 220</td>
<td>Advanced CAD</td>
</tr>
<tr>
<td>IDE 230</td>
<td>Introduction to Mechanical Principles</td>
</tr>
</tbody>
</table>

#### Public Services

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>AD1</td>
<td>Alcohol and Drug Dependency</td>
</tr>
<tr>
<td>ADUJ 1</td>
<td>The Administration of Justice System</td>
</tr>
<tr>
<td>ADUJ 2</td>
<td>Principles and Procedures of the Justice System</td>
</tr>
<tr>
<td>ADUJ 3</td>
<td>Concepts of Criminal Law</td>
</tr>
<tr>
<td>ADUJ 4</td>
<td>Legal Aspects of Evidence</td>
</tr>
<tr>
<td>ADUJ 5</td>
<td>Community Relations</td>
</tr>
<tr>
<td>ADUJ 6</td>
<td>Concepts of Enforcement Services</td>
</tr>
<tr>
<td>ADUJ 13</td>
<td>Concepts of Traffic Services</td>
</tr>
<tr>
<td>ADUJ 20</td>
<td>Principles of Investigation</td>
</tr>
<tr>
<td>ADUJ 38</td>
<td>Narcotics Investigation</td>
</tr>
<tr>
<td>ADUJ 59</td>
<td>Gangs in the Community/Corrections</td>
</tr>
<tr>
<td>ADUJ 68</td>
<td>Administration of Justice Report Writing</td>
</tr>
<tr>
<td>ADUJ 74</td>
<td>Vice Control</td>
</tr>
<tr>
<td>CORS 10</td>
<td>Introduction to Correctional Sciences</td>
</tr>
</tbody>
</table>

### HEALTH SCIENCES DIVISION

#### Radiologic Technology

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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</thead>
<tbody>
<tr>
<td>RAD 50</td>
<td>Radiologic Technology</td>
</tr>
<tr>
<td>RAD 61A</td>
<td>Theory of Radiologic Technology</td>
</tr>
<tr>
<td>RAD 61B</td>
<td>Radiographic Positioning</td>
</tr>
<tr>
<td>RAD 61C</td>
<td>Radiologic Technology Seminar</td>
</tr>
<tr>
<td>RAD 91</td>
<td>Nursing Procedure in Radiologic Technology</td>
</tr>
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#### Respiratory Therapy

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>RESD 50</td>
<td>Theory and Principles of Respiratory Therapy</td>
</tr>
<tr>
<td>RESD 50A-B</td>
<td>Respiratory Therapy Science</td>
</tr>
<tr>
<td>RESD 52</td>
<td>Pulmonary Anatomy and Physiology</td>
</tr>
<tr>
<td>RESD 53</td>
<td>Cardiopulmonary Pathophysiology</td>
</tr>
<tr>
<td>RESD 55</td>
<td>Adult Respiratory Intensive Care</td>
</tr>
<tr>
<td>RESD 57A-B</td>
<td>Special Procedures for Respiratory Care</td>
</tr>
<tr>
<td>RESD 58</td>
<td>Neonatal Intensive Care</td>
</tr>
<tr>
<td>RESD 59</td>
<td>Respiratory Therapeutic Modalities</td>
</tr>
<tr>
<td>RESD 60</td>
<td>Comprehensive Pulmonary Assessment</td>
</tr>
<tr>
<td>MEDI 90</td>
<td>Medical Terminology</td>
</tr>
</tbody>
</table>

Pursuant to Section 55050 of Title 5 of the California Code of Regulations, students at Mt. San Antonio College may apply for Credit by Examination and such unit credit may be granted subject to the following rules and regulations:

### Rules and Regulations

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

A list of courses for Credit by Examination is available at each Division Office, the Instruction Office, and the Counseling Center.
Advanced Placement Credit for Mt. SAC General Education Requirements for the Associate Degree
Students who have a qualifying Advanced Placement (AP) test score (3 or above) may petition to utilize the results of their AP examinations to meet Mt SAC general education requirements in the areas identified in the table on page 14.

International Baccalaureate Credit for Mt. SAC General Education Requirements for the Associate Degree
Students completing all or portions of the International Baccalaureate (IB) program at their high school may petition to utilize the results of their IB examinations to meet Mt SAC general education requirements in the areas identified in the table. Only IB Higher Level (HL) certificate examinations with scores of 5, 6 or 7 will be honored.

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

Credit for Extra Institutional Learning
Philosophical Basis
This policy of granting credit for extra-institutional learning is provided for students under special conditions in recognition of learning that has been attained outside the sponsorship of legally authorized and accredited post-secondary institutions. (AP 4285)

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

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

Policy Regulations
- Of the 60 units required for the Associate Degree, at least twenty-four (24) units must be earned in courses that contribute to the grade point average.
- Extra-institutional learning credit will normally not be evaluated unless the credit is necessary for graduation.

<table>
<thead>
<tr>
<th>AP Examination</th>
<th>Score Needed / GE/Equivalency</th>
<th>Mt. SAC GE Area</th>
<th>GE Units</th>
<th>Equivalent Mt. SAC Course</th>
<th>Degree Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Art History</td>
<td>3</td>
<td>C1 or C2</td>
<td>3</td>
<td>AHIS 4 + AHIS 5</td>
<td>6</td>
</tr>
<tr>
<td>Biology</td>
<td>3</td>
<td>B2</td>
<td>3</td>
<td>BIOL 1</td>
<td>6</td>
</tr>
<tr>
<td>Calculus AB*</td>
<td>3/4</td>
<td>Math Competency</td>
<td>N/A</td>
<td>MATH 180</td>
<td>3</td>
</tr>
<tr>
<td>Calculus BC</td>
<td>3/3</td>
<td>Math Competency</td>
<td>N/A</td>
<td>MATH 180 or MATH 181</td>
<td>6</td>
</tr>
<tr>
<td>Chemistry</td>
<td>3</td>
<td>B1</td>
<td>3</td>
<td>None</td>
<td>6</td>
</tr>
<tr>
<td>Chinese Language and Culture</td>
<td>3</td>
<td>C2</td>
<td>3</td>
<td>CHIN 1 + CHIN 2</td>
<td>6</td>
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<tr>
<td>Computer Science A</td>
<td>3</td>
<td>N/A</td>
<td>N/A</td>
<td>CSCI 145</td>
<td>3</td>
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<tr>
<td>Computer Science AB</td>
<td>3</td>
<td>N/A</td>
<td>N/A</td>
<td>None</td>
<td>6</td>
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<tr>
<td>English Language and Composition</td>
<td>3</td>
<td>A2</td>
<td>3</td>
<td>ENGL 1A</td>
<td>6</td>
</tr>
<tr>
<td>English Literature and Composition</td>
<td>3</td>
<td>A2 + C2</td>
<td>6</td>
<td>ENGL 1A + ENGL 1B</td>
<td>6</td>
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<tr>
<td>Environmental Science</td>
<td>3</td>
<td>B1</td>
<td>3</td>
<td>None</td>
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<td>European History</td>
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<td>C2 or D2</td>
<td>3</td>
<td>None</td>
<td>6</td>
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<tr>
<td>French Language and Culture</td>
<td>3</td>
<td>C2</td>
<td>3</td>
<td>FRCH 1 + FRCH 2</td>
<td>6</td>
</tr>
<tr>
<td>French Literature</td>
<td>3</td>
<td>C2</td>
<td>3</td>
<td>FRCH 3</td>
<td>6</td>
</tr>
<tr>
<td>German Language and Culture</td>
<td>3</td>
<td>C2</td>
<td>3</td>
<td>GERM 1 + GERM 2</td>
<td>6</td>
</tr>
<tr>
<td>Government and Politics: Comparative</td>
<td>3</td>
<td>D2</td>
<td>3</td>
<td>None</td>
<td>3</td>
</tr>
<tr>
<td>Government and Politics: US</td>
<td>3</td>
<td>D1</td>
<td>3</td>
<td>None</td>
<td>3</td>
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<tr>
<td>Human Geography</td>
<td>3</td>
<td>D2</td>
<td>3</td>
<td>GEOG 2</td>
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<tr>
<td>Italian Language and Culture</td>
<td>3</td>
<td>C2</td>
<td>3</td>
<td>ITAL 1 + ITAL 2</td>
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<tr>
<td>Japanese Language and Culture</td>
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<td>C2</td>
<td>3</td>
<td>JAPN 1 + JAPN 2</td>
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<tr>
<td>Latin: Literature</td>
<td>3</td>
<td>C2</td>
<td>3</td>
<td>None</td>
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<tr>
<td>Latin: Vergil</td>
<td>3</td>
<td>C2</td>
<td>3</td>
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<td>Macroeconomics</td>
<td>3/4</td>
<td>D2</td>
<td>3</td>
<td>BUSC 1A</td>
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<td>Microeconomics</td>
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<td>3</td>
<td>BUSC 1B</td>
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<td>C1</td>
<td>3</td>
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<td>3</td>
<td>B1</td>
<td>3</td>
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<tr>
<td>Physics: Electricity and Magnetism</td>
<td>3</td>
<td>B1</td>
<td>3</td>
<td>None</td>
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<tr>
<td>Physics: Mechanics</td>
<td>3</td>
<td>B1</td>
<td>3</td>
<td>None</td>
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<td>Psychology</td>
<td>3</td>
<td>D2</td>
<td>3</td>
<td>PSYC 1A</td>
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<tr>
<td>Spanish Language</td>
<td>3</td>
<td>C2</td>
<td>3</td>
<td>SPAN 1 + SPAN 2</td>
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<tr>
<td>Spanish Literature</td>
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<td>C2</td>
<td>3</td>
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<td>Statistics</td>
<td>3</td>
<td>Math Competency</td>
<td>N/A</td>
<td>MATH 110</td>
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<tr>
<td>Studio Art: 2D</td>
<td>3</td>
<td>General education and course equivalency credit based on portfolio review</td>
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<tr>
<td>Studio Art: 3D</td>
<td>3</td>
<td>General education and course equivalency credit based on portfolio review</td>
<td>3</td>
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<tr>
<td>Studio Art: Drawing</td>
<td>3</td>
<td>General education and course equivalency credit based on portfolio review</td>
<td>3</td>
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<td>United States History</td>
<td>3</td>
<td>C2 or D1</td>
<td>3</td>
<td>HIST 1</td>
<td>6</td>
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<tr>
<td>World History</td>
<td>3</td>
<td>C2 or D2</td>
<td>3</td>
<td>None</td>
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*A score of 3 on the Calculus AB Advanced Placement Exam will earn a student three (3) degree applicable units, Math Competency and Eligibility for MATH 180.
Credit for non-collegiate courses will be awarded only for work applicable toward the Associate Degree. Credit may be granted for upper division courses provided the student has earned less than 60 units at the time the upper division work is attempted.

To petition for extra-institutional learning credit, a student must have at least a 2.0 grade point average, not be on probation, and be in good standing.

The permanent academic record shall be annotated in such a manner to insure that a true and complete history of extra-institutional learning credit has been granted.

In cases where a student is seeking a degree/certificate from the College, all standard graduation and residency requirements apply and must be met by completing a minimum of 12 units earned from Mt. SAC courses.

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

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Academic Policies and Requirements

Alpha Gamma Sigma

Mt. San Antonio College sponsors the Zeta Chapter of Alpha Gamma Sigma, the scholastic honorary organization for California Community Colleges. Full-time and part-time students are eligible for membership. Membership requires campus and community involvement (service hours). There are three categories of membership eligibility. Only degree appropriate courses/units (those that grant credit for an Associate or Bachelor's degree) may be used to establish eligibility for membership (Exception: Temporary Membership).

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

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

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

Permanent membership in Alpha Gamma Sigma is an honorary lifetime AGS title for students who have completed 60 degree appropriate units; a minimum of 30 of the total 60 units must have been completed at Mt. SAC. A permanent membership application must be submitted by the graduation petition deadline. To apply students must: a) have a cumulative G.P.A of 3.25 or higher for 60 completed degree appropriate units and, b) complete a minimum of two semesters as an active or inactive member. Only permanent members receive recognition at graduation. Scholarships provided by the Zeta Chapter and the State Alpha Gamma Sigma Organization are available to actively involved members. Some baccalaureate granting institutions provide scholarships limited to Alpha Gamma Sigma members. Applications are available in Student Life, Building 9C.

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

Phi Theta Kappa

Mt. SAC sponsors the Alpha Omega Alpha Chapter of Phi Theta Kappa, an international scholastic honorary organization for two-year colleges. Eligibility for membership is established for the following:

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

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

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

ACADEMIC STANDARDS

Probation and Dismissal

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

Academic Probation

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

1. attempted at least 12 units, and
2. earned a cumulative grade point average (GPA) below 2.0.

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

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

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

Clearing Probation

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

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

Probation and Dismissal Status

1. Probation

a. Academic Probation - occurs at the end of that first semester in which the student has attempted at least 12 units and has earned a cumulative grade point average below 2.0, or

b. Progress Probation - occurs at the end of that first semester in which the student has attempted at least 12 units and the cumulative percentage of all units in which the student has enrolled for which entries of “W”, “I” and “NP” are recorded reaches or exceeds fifty percent.

2. Continued Probation

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

b. Continued Progress Probation - occurs when the student in a second consecutive semester continues to have a cumulative percentage of all units enrolled recorded as “W”, “I” and “NP” at fifty percent or higher.

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

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

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

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

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

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

A. A maximum of twenty-four units may be alleviated.
B. Since completion of the work to be disregarded, the student's cumulative grade point average for all units completed at the time of adjustment must be at least 3.0 for 18 semester units, 2.5 for 24 semester units, or 2.0 for 30 units. The cumulative grade point average may include coursework completed at Mt. San Antonio College and/or other accredited colleges or universities. Courses used to qualify for Academic Renewal which were completed at another college or university must be verified by official college transcripts.
C. A time period of at least two years must have elapsed since the end of the term of substandard work to be disregarded.

D. Academic renewal will apply only to substandard grades: D, F, and NP.
E. The permanent academic record shall be annotated in such a manner that all work remains legible, insuring a true and complete academic history.
F. Mt. San Antonio College does not guarantee that academic renewal will be honored by institutions outside of the District. This determination will be made by the transfer institution.
G. Students requesting academic renewal should consult with a counselor to file a petition. (BP 4240, AP 4240)

Transcripts

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

Further information regarding transcript services is available at http://www.mtsac.edu/students/admissions/transcripts.html
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
http://www.mtsac.edu/admissions

Admissions and Records is usually the first office prospective students visit and the last office students visit before transferring or graduating. Some of the services provided:

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

2. Course Registration: All registration is conducted online via the web at http://my.mtsac.edu. Registration instructions can be found in the current Schedule of Classes or online at http://my.mtsac.edu.

3. Admissions and Records is the official custodian of student records. This office maintains student demographic information such as name, address and Mt. SAC student identification number, student academic history, issues I-20's for International Students, processes Petitions for Exceptional Action, transcript and enrollment verification requests, graduation and certificate petitions and distributes diplomas and certificates.

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

The Aspire Program
Building 9D, Ext. 6396
http://www.mtsac.edu/aspire

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

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

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

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

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

The Bridge Program is a learning community designed to increase student academic and personal success through the structuring of a personalized learning environment.

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

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

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

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

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

CalWORKs (California Work Opportunities and Responsibility to Kids)
Student Services Center, Ext. 4755
http://www.mtsac.edu/calworks

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

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

*Based upon adequate funding

For more information, visit www.mtsac.edu/students/calworks

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

CARE is a supplemental program for EOPS students who are single head of household parents receiving TANF benefits. The program provides additional assistance to students who are:

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

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

Career and Transfer Services
Student Services Center, Ext. 4510

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

Career Services include:

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

While Mt. SAC graduates may return to Career and Transfer Services for employment assistance, current students are strongly encouraged to visit Career and Transfer Services while still attending. For more information, please go to http://careerservices.mt sac.edu.

Transfer Services include:
- Library of career and college guidebooks and university catalogs
- Workshops on transfer topics
- University representative visits and appointments
- College fairs
- University tours
- Walk-in transfer advising
- Computers for career and transfer research, applications and more!

For more information, please go to http://transfer.mt sac.edu.

Counseling Center
Student Services Center, Ext. 4380
http://www.mt sac.edu/counseling

Students can take advantage of educational planning, career exploration and decision-making, and other services offered through the Counseling Center. Counselors are available to assist students who:
- are undecided about a major or career direction;
- need information about career and transfer options;
- are having difficulty in 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 certifcate completion;
- information about major and transfer requirements to CSU, UC and private universities;
- general information about the College.

Disabled Student Programs & Services (DSPS)
Student Services Center, Ext. 4290
http://www.mt sac.edu/dsp

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

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

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

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

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

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

The services offered are:
- Counseling
- Educational Planning
- Instructional Development and Services
- Tutoring
- Book Service Program
- Financial Assistance
- Classroom testing accommodations
- Specialized counseling and advising
- Academic and career strategies classes
- Print material in alternate formats (i.e. Braille, e-text)

Students with a doctor's verifcation which requires parking in zones designated as “handicapped parking,” must display on their vehicles a “Disabled Person” placard or “DP” license plate from the State of California Department of Motor Vehicles. Students with a current “Disabled Person” permit and placard or a “DP” license plate are not required to purchase a student parking permit and are allowed to park in any parking space designated as “handicapped parking,” any metered space (at no cost), or any time limited space (without having to observe the time limit specifed). Students must ensure that the placard or license plate is displayed properly.

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

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

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

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

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

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

1. Having a high school diploma or equivalent such as a GED.
2. Being a U.S. citizen or eligible non-citizen.
3. Maintaining satisfactory progress in accordance with the standards.
4. Not be in default on a federal loan or grant overpayment.
5. Be registered with the selective service, if required.
6. Have a valid social security number.

To be considered for fnancial aid, students must complete the Free Application for Federal Student Aid (FAFSA) or the renewal application. These applications are usually available beginning in January for the following academic year. If a student is interested in a State of California Grant, the FAFSA and a GPA verifcation 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 for community college students to apply for Cal Grants. The second deadline is September 2nd. Additional information and eligibility requirements are available at https://mygrantinfo.csac.ca.gov/logon.asp

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

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

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

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

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

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

**ABILITY TO BENEFIT**

Beginning on July 1, 2012, federal regulations will require all students applying for financial aid to have a high school diploma, GED or a certificate of high school proficiency. The Mt. SAC Assessment Center will no longer be offering the Ability To Benefit test to students. For further information regarding the federal government's Ability To Benefit regulations, contact the Financial Aid Office. Note: This rule change does not prevent students without a high school diploma, GED or certificate of high school proficiency to attend classes at Mt. SAC. This only affects students eligible to receive financial aid.

**California Dream Act**

The California Dream Act of 2011 consists of two bills, Assembly Bill 130 (AB 130), signed into law by Governor Jerry Brown on June 25, 2011; and Assembly Bill 131 (AB 131) signed into law by Governor Brown on October 8, 2011. As a result of the California Dream Act, those students who are eligible for the non-resident tuition exemption (under Assembly Bill 540, or AB 540), but who are ineligible for federal financial aid are now eligible to receive grants and scholarships from the State of California and institutional sources, such as Board of Governor’s Fee Waiver (BOG), Cal Grant, and/or institutional scholarships.

Under AB 540, a student who is without a valid immigration status may request exemption from paying nonresident tuition if the student:

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

Students who wish to qualify as AB 540 students must complete and submit a California Nonresident Tuition Exemption Request (sometimes referred to as an AB 540 Affidavit) with required documentation to the Admissions and Records Office at Mt. SAC.

The California Student Aid Commission's Dream Act Application (https://dream.csac.ca.gov/) is used to determine the financial eligibility of students who meet the qualifications of AB 540, and who are without a valid immigration status. The application collects basic personal and income information to determine student eligibility for funding under AB 131. Apply between January 1 and March 2 of each year for priority consideration.

Students will need to complete the Dream Application every year to determine eligibility for state and institutional aid. Students should complete and submit Mt SAC's AB 540 Affidavit (California Non-Resident Tuition Exemption Request form) in order to begin a review of eligibility under AB 540.

**The International Student Center**

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

The International Student Center, located on the upper level of the Student Services Center (9B), is a place where F-1 students can connect with one another and the international community. Students will find comfortable spaces to network with friends, computer stations available for their academic needs as well as referrals to student services and resources. Students with questions related to the college or a personal need will find friendly staff available to assist.

**International Student Programs**

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

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

**Public Safety Escort Service, Ext. 4233**

http://www.mtsac.edu/safety

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

**Escort Location Map**

Campus escort locations are indicated on the map below with a white X.
All credit students who are currently enrolled and attending classes are eligible. 

Veterans Resource Center (VRC)
Building 16C, Ext. 4520
http://www.mtsac.edu/veterans/vrc.html

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

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

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

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

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

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

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

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

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

A.S. Student Activities Fee
The Student Activities Fee is an $11 fee collected every Fall and Spring Semester to provide numerous programs and services on campus including book grants, scholarships, cultural programs, speakers, social activities, and discounted amusement park and movie tickets. This fee is optional. Waiving this fee will exclude the student from taking advantage of these benefits. Students can waive this fee by visiting the Bursar’s Office. Refunds will only be issued during the first two weeks of the semester.

Student Representation Fee
The Student Representation Fee is a mandatory fee that is collected during Fall and spring registration for the purpose of providing Mt. SAC students the means to state their positions and viewpoints before city, county, district, and state government agencies. A student may choose not to pay the Student Representation Fee for political, religious, financial, or moral reasons. If a student chooses to opt-out of paying the fee for the stated reasons, then the student must: 1) visit the Student Life Office in building 9C to get the opt-out form; 2) complete the form and; 3) return it to the Bursar’s Office prior to paying the college fees.

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

More than 60 student clubs and organizations provide opportunities to make friends, enhance learning, build leadership skills and have fun. The Inter-Club Council (ICC) is comprised of one representative from each student club and meets regularly to discuss club activities and formulate procedures to better serve the campus community. Join-A-Club is a three-day event at the beginning of each semester for students to learn more about co-curricular campus involvement opportunities. A current listing of student clubs and organizations is available online at http://www.mtsac.edu/clubs.

Student Life Office/Student Center
Building 9C, Ext. 4525
http://www.mtsac.edu/studentlife

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

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

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

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

The Student Life Center provides a relaxing area to lounge, watch TV, and play foosball, ping pong, a variety of board games, or video games. Students also have access to free wireless Internet. The Student Life Center creates an environment for students to socialize and connect with other students as well as serves as a meeting place for events, activities, clubs and student government. The Student Life Center is also the place to find information about off-campus housing.
SECTION 5

Campus Facilities
CAMPUS FACILITIES

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

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

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

Athletic Facilities, Ext. 4630
Hilmer Lodge Stadium, a 13,500-seat football and track facility, is located in the southeast section of the College campus. This is the home of the Hilmer Lodge Stadium, a 13,500-seat football and track facility, is located in the southeast section of the College campus. This is the home of the Mt. SAC Relays. Other athletic facilities include tennis courts, volleyball courts, cross-country course, baseball field, softball field, soccer field, a 1,500-seat gymnasium, wrestling gym, strength training facilities, an Olympic size swimming pool, and an Exercise Science/Wellness Center.

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

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

Students are responsible for obtaining their own textbooks and supplies. Costs for books and supplies for a full-time student average $300-$600 per semester, depending upon the program of study. Students are encouraged to purchase books early, especially to save money by purchasing used books. Books are sold on a first-come, first-served basis. Students may order books online at www.sacbookrac.com. Orders can be picked up at the bookstore or shipped to the student’s home.

Refund Policy

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

Child Development Center
Buildings 70-73, Ext. 4920
http://www.mtsac.edu/cdc

Admission Policy
Childcare and education services for children from 3 months through 5 years of age are provided between the hours of 7:00 a.m. and 7:00 p.m., Monday through Thursday 7:00 a.m. until 5 p.m. on Fridays for student-parents, staff and faculty, and community parents. The Child Development Center welcomes all children regardless of sex, ethnicity, religion, or physical handicap.

According to State Law, children must meet general health requirements to enroll/attend. Parents requesting funding assistance for full-time and part-time children may apply.

Types of Funding Assistance Available
State Preschool Program
State Preschool Program funding is available for eligible student-parents of 3 and 4 year old children (4 year-old children have priority). A minimum daily fee, established by the State, may apply.

General Childcare Funding
General Childcare funding is available for income and need eligible families. This funding applies to infants up to 3-year-olds and before/after school kindergarten. A minimum daily fee, established by the State, may apply.

Child Care Access Grant Funding
Student-parents who receive or are eligible to receive a Pell Grant may qualify for this childcare/early education funding. Funds are limited to Mt. SAC students only.

Alternative Payment Program (CalWORKS)
The Child Development Center accepts “Alternative Payments” or fees from community agencies and programs such as CalWORKS for childcare. Interested parents must inquire with their individual CalWORKS Eligibility Worker or GAIN Worker.

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

Enrollment

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

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

Farm
F Buildings, Ext. 4540

The Farm is located in the northeast area of campus, near the intersection of Bonita and Walnut Drives. The Farm offers an unrivaled opportunity for student learning serving as a laboratory and supervised farm. Students interested in stock breeding, veterinary science, agri-business, horse production, field crop production, horticulture, or farm products can gain valuable experience by working with their own animals and crops while attending Mt. SAC. Contact the Campus Events office at Ext. 4794 for information on guided tours.

Food Services
http://www.mtsacdining.com

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

Campus Café
Building 8, Ext. 5284

The Campus Café is located on the west side of campus next to the SacBookRac. Catering is available for small meetings and large banquets. Subversions — sub sandwiches, soups, wraps, healthy options, and daily specials. Castillo’s Mexican Grill — fresh tacos, burritos, and salads. Simply to Go — made fresh “in-house” sandwiches, salads, wraps, healthy snacks, and cookies. Chef’s Corner — daily fresh breakfast and lunch menu. Pizza Stop — individual pizzas, flatbread pizza, and fresh made pasta bowls. Common Grounds featuring Starbucks — we proudly brew hot and cold coffee drinks, frappuccino, fresh baked muffins, scones, and brownies.
WOW at Mountie Grill
Building 19C, Ext. 4624
WOW Cafe and Wingery - breakfast, wings, chicken, hamburgers, salads and rice bowls.

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

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

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

Performing Arts Center
Building 2, Ext. 2050
The Mt. San Antonio College Performing Arts Center is a 66,770 square foot facility that provides instructional and performance accommodations to the three main discipline areas of Theatre, Music, and Dance. The Performing Arts Center is designed as a technological, state-of-the-art instructional facility to prepare Mt. San Antonio College students for careers in the performing arts.

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

The Music Recital Hall provides for intimate musical performances. The Recital Hall is a 250-seat space richly articulated with reflective surfaces of maple wood and acoustical plaster; it is acoustically shaped with a 43' high ceiling. Sound reflectors above the stage further support acoustical distribution.

The Studio Theater adjacent to the Clarke Theater is surrounded by a scene shop, costume shop, dressing rooms, and faculty offices. The 40' x 50' x 40' theater allows for total dramatic performance flexibility. 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 venue is designed to provide state-of-the-art acoustical quality and technical performance capabilities that put the Mt. SAC Performing Arts Center on a level with the finest theaters in the region.

Performing Arts Center Box Office
Box Office Phone: (909) 274-2050
Box Office Fax: (909) 274-2055
https://tickets.mtsac.edu

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

Randall Planetarium
Building 26C, Ext. 4425
http://www.mtsac.edu/instruction/sciences/planetarium/
The Randall Planetarium offers instructional support for college classes as well as a wide variety of public programs on a regular basis. The Planetarium facility has a 35-foot-diameter hemispherical dome and seating for up to 75 people.

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

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

Offerings will be provided to graded students and for staff and faculty through the Employee Wellness Program. Please see http://www.mtsac.edu/wellness/ for more information and course offerings.

Wildlife Sanctuary, Ext. 4425
This ten-acre parcel, located on the southwestern portion of the Mt. San Antonio College campus includes a stream, lake, pond, swamp, meadow, and woodland. The sanctuary has been set aside as a place where plants and animals exist in a natural balance. Paths through the sanctuary provide access for visitors. For guided tours, contact the Campus Events office at Ext. 4794.
SECTION 6

Instruction, Learning Resources and Programs of Study
INSTRUCTION
The Office of Instruction provides a wide range of services essential to student success in an environment of academic excellence.

Language Learning Center (LLC)
Building 6, Room 264 South Entrance, Upper Level, (909) 274-4580
The Language Learning Center (LLC) offers computer, web, and other media resources for students learning English as another language (ESL and AMLA) as well as those studying sign language (ASL) and foreign languages.

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

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

Work Experience Education, Ext.4204
Occupational work experience education is supervised work activity extending classroom-based occupational learning at an on-the-job learning station (work site) related to the student's occupational goal. This is guided by a written agreement between the College, the work site, and the student, providing the learner with adequate equipment, materials, and facilities to support the learning objectives specified within the agreement.

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

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

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

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

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

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

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

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

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

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

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

The Library faculty teach information competency through courses, customized classes, drop-in workshops and individualized instruction at the reference desk. The librarians at the library information desk can assist with all aspects of the research process from choosing a topic to searching for and evaluating information in print and electronic formats.
Mt. San Antonio College currently offers 85 Associate and Transfer Degrees and 130 Certificates of Achievement and Skills Certificates in a wide range of academic, career and technical areas. These programs of study appeal to a diversity of interests reflecting industry needs and career trends to provide students with the skills and knowledge needed to earn a degree, transfer to a four-year college/university or prepare for employment.

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

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<th>PROGRAM</th>
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<th>CERTIFICATE OF ACHIEVEMENT</th>
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Transfer degrees are Associate in Arts for Transfer degrees and Associate in Science for Transfer degrees.

Associate degrees are Associate in Science degrees and Associate in Arts degrees in Liberal Arts and Sciences with Emphases.

Certificates of Achievement are certificates of at least 18 units.

Skills Certificates are certificates of less than 18 units.
Mt. San Antonio College offers two different types of certificates for credit programs of study:

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

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

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

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

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

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

### PROGRAMS OF STUDY LEADING TO A CERTIFICATE

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### SKILLS CERTIFICATES

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### Accounting - Bookkeeping

**Business Division**

**Certificate E0504**

The Accounting - Bookkeeping Certificate provides basic accounting skills and knowledge, preparing the student for entry-level positions as an accounting clerk in areas such as bookkeeping, accounts receivable, accounts payable, inventory tracing/reporting, bank reconciliation, expense reporting, and account analysis.

#### Required Courses:

- **BUSA 7** Principles of Accounting - Financial 5.0
- **BUSA 72** Bookkeeping - Accounting 5.0
- **BUSA 75** Using Microcomputers in Financial Accounting 1.0
- **BUSA 76** Using Microcomputers in Managerial Accounting 1.0
- **BUSA 68** Business Mathematics 3.0

**Total Units 7.0 - 9.0**

### Accounting - Payroll

**Business Division**

**Certificate E0505**

The Accounting - Payroll Certificate provides basic accounting skills and knowledge combined with specialized training in payroll, preparing the student for entry-level clerical positions within the payroll segment of accounting. Common duties performed include payroll tax reporting, preparing the student for entry-level positions.

#### Required Courses:

- **BUSA 7** Principles of Accounting - Financial 5.0
- **BUSA 70** Payroll and Tax Accounting 3.0
- **BUSA 75** Using Microcomputers in Financial Accounting 1.0
- **BUSA 68** Business Mathematics 3.0

**Total Units 10.0 - 12.0**

### Animal Science Fundamentals

**Natural Sciences Division**

**Certificate E0360**

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

#### Required Courses:

- **AGAN 1** Animal Science 3.0
- **AGAN 2** Animal Nutrition 3.0
- **AGAN 51** Animal Handling and Restraint 3.0
- **AGAN 94** Animal Breeding 3.0
- **AGLI 96** Animal Sanitation and Disease Control 3.0

**Total Units 15.0**

### Animation - Game & Interactive Multimedia Design I

**Arts Division**

**Certificate E0339**

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

#### Required Courses:

- **ANIM 101A** Drawing - Gesture and Figure 3.0
- **ANIM 108** Principles of Animation 3.0
- **ANIM 111A** Animal Drawing 1.5
- **ANIM 115** Storyboarding 1.5
- **ANIM 116** Character Development 1.5
- **ANIM 104** Drawing Fundamentals 3.0

**Recommended Elective:**

- **ANIM 15A** Drawing: Beginning 3.0

**Total Units 15.0**

**Architecture Foundational Skills**

**Technology and Health Division**

**Certificate E0387**

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

#### Required Courses:

- **ARCH 101** Design I – Elements of Design 4.0
- **ARCH 141** Design Drawing and Communication 4.0
- **ARCH 121** CADD and Digital Media Level I 4.0

**Total Units 12.0**

### Athletic Trainer Aide I

**Kinesiology & Athletics Division**

**Certificate E0802**

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

#### Required Courses:

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

**Total Units 11.0 - 12.0**
### Business: Human Resource Management – Level I

**Business Division**

**Certificate E0531**

This introductory certificate exposes students to the business world and the role of human resources. Students become familiar with various approaches to business organization and the strategic nature of human resources. This certificate may aid the student's search for an entry-level job in the business world.

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

**Total Units: 9.0**

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

**Business: Human Resources Management Level II** (L0534), Level III (L0535)

### Business: International – Level I

**Business Division**

**Certificate E0527**

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

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

**Total Units: 9.0**

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

**Business: Management - Level I**

**Business Division**

**Certificate E0525**

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

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

**Total Units: 9.0**

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

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

### Business: Retail Management - Level I

**Business Division**

**Certificate E0500**

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

**Required Courses:**
- BUSO 25 Business Communications 3.0
- CISB 15 Microcomputer Applications 3.5
- FASH 62 Retail Buying and Merchandising 3.0
- or
- BUSS 50 Retail Store Management and Merchandising 3.0

**Total Units: 9.5**

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

**Business: Retail Management Level II** (L0591), Level III (T0521)

### Business: Small Business Management - Level I

**Business Division**

**Certificate E0529**

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

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

**Total Units: 9.0**

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

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

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

**Business Division**

**Certificate E1326**

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

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

**Total Units: 12.0**

**Children's Program Certificate General Level II** (L1328), Level III (L1327)

### CIS Professional Certificate in C++ Programming

**Business Division**

**Certificate E0714**

The CIS Professional Certificate in C++ Programming prepares students for a career in computer programming. It is intended for returning CIS professionals with several years of experience or current students who have completed several CIS courses. Emphasis is placed on object-oriented programming, database programming and developing a graphical user interface. Students will demonstrate the ability to create business-oriented applications using both the C++ and Visual C++ programming languages; demonstrate effective object-oriented design techniques; write effective program documentation, and demonstrate program troubleshooting skills. Opportunities available after the
Programs of Study Leading to a Certificate

Required Courses:

- CISP 10 Principles of Object-Oriented Design 2.0
- CISP 31 Programming in C++ 3.0
- CISP 31L Programming in C++ Laboratory 0.5
- CISP 34 Advanced C++ Programming 3.0
- CISP 34L Advanced C++ Programming Laboratory 0.5

Plus or

- CISP 11 Database Management - Microsoft Access 3.0
- CISP 11L Database Management - Microsoft Access Lab 0.5
- CISP 21 Database Management - Microsoft Access 3.0
- CISP 21L Database Management - Microsoft Access Laboratory 0.5
- CISP 14 Database Management - Oracle 3.0
- CISP 14L Database Management - Oracle Laboratory 0.5
- CISP 40 Database Design 3.0

Total Units 12.5

CIS Professional Certificate in Excel and Access

Business Division Certificate E0370

This certificate in Excel and Access is designed to prepare students for careers in computer programming. The certificate offers a balanced set of classes that prepares students for using advanced features of both Excel and Access needed by industry. Emphasis is placed on Excel functions as well as Access relational database techniques. Within Excel, students create a variety of workbooks, utilizing charts, PivotTables, various functions, macros, lists and tables. With Access, students create a variety of objects, including tables, queries, forms, reports and macros, as well as VBA programming. In the VBA for Excel and Access, VBA is used in both Excel and Access to program advanced functionality that may be needed within these applications. Much attention is paid to design principles, including normalization, securing databases, and other current topics in the database field. Students will demonstrate understanding of the topics via projects using various real-world workbooks and databases. Opportunities available after the completion of this certificate include, but are not limited to, administrative aides, database administrators, designers and developers, and database systems analysts. In addition, courses help prepare students to take the Microsoft MOS certification exam in Excel and Access.

Required Courses:

- CISP 21 Microsoft Excel 3.0
- CISP 11L Database Management 3.0
- Microsoft Access 0.5
- CISP 11L Database Management 3.0
- Microsoft Access Lab 0.5
- CISP 14 VBA for Excel and Access 3.0
- CISP 14L VBA for Excel and Access Laboratory 0.5
- CISP 40 Database Design 3.0

Total Units 13.0

CIS Professional Certificate in Java Programming

Business Division Certificate E0700

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

Required Courses:

- CISP 10 Principles of Object-Oriented Design 2.0
- CISP 21 Programming in Java 3.0
- CISP 21L Programming in Java Laboratory 0.5
- CISP 24 Advanced Java Programming 3.0
- CISP 24L Advanced Java Laboratory 0.5

Total Units 10.5
CIS Professional Certificate in Networking
Business Division Certificate E0716
The CIS Professional Certificate in Networking program is designed to prepare students for a career in the computer networking industry. The certificate offers a balanced set of classes that prepare students to design, implement, and manage the heterogeneous corporate network. The network administration courses emphasize network operating systems, network infrastructure, and data communications. Students will acquire the skills to install and administer a Windows network, Virtualization, Active Directory, group policy, file system security, DNS, DHCP, Linux Networking, Cisco routers, switches, network infrastructure, access control list, Virtual LAN (VLAN) and VLAN routing. Individual courses will help students prepare for related industry certification exams such as Network+, Microsoft MCITP, Cisco CCNA and Red Hat RHCSA. Opportunities available upon completion of this certificate include entry-level and mid-management positions in Network Administration.

Required Courses:

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</tr>
<tr>
<td>CISN 24L</td>
<td>Windows Server Network and Security Lab</td>
<td>0.5</td>
</tr>
<tr>
<td>CISN 34</td>
<td>Linux Networking and Security</td>
<td>3.0</td>
</tr>
<tr>
<td>CISN 34L</td>
<td>Linux Networking and Security Lab</td>
<td>0.5</td>
</tr>
<tr>
<td>CISN 51</td>
<td>Cisco CCNA Networking and Routing</td>
<td>3.0</td>
</tr>
<tr>
<td>CISN 51L</td>
<td>Cisco CCNA Networking and Routing Lab</td>
<td>0.5</td>
</tr>
<tr>
<td>Total Units</td>
<td></td>
<td>14.0</td>
</tr>
</tbody>
</table>

CIS Professional Certificate in Object-Oriented Design & Programming
Business Division Certificate E0723
The CIS Professional Certificate in Object-Oriented Design and Programming prepares students for a career in computer programming. The certificate offers a balanced set of classes that provides students the skills to design and develop business applications using the Unified Modeling Language (UML) and an object-oriented programming language. Students will demonstrate the ability to design and implement business environment applications that will contain the front-end user interface and back-end database. Students in this program select one of the following three programming language concentrations: Visual Basic.NET, Java or C++. Career opportunities available after the completion of this certificate include programming for systems, mobile devices, device drivers, and software engineering.

Required Courses (2 Units):

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CISP 10</td>
<td>Principles of Object-Oriented Design</td>
<td>2.0</td>
</tr>
<tr>
<td>CISP 11L</td>
<td>Programming in Visual Basic</td>
<td>3.0</td>
</tr>
<tr>
<td>CISP 11</td>
<td>Programming in Visual Basic Lab</td>
<td>0.5</td>
</tr>
<tr>
<td>CISP 12</td>
<td>Advanced Visual Basic .NET</td>
<td>3.0</td>
</tr>
<tr>
<td>CISP 13</td>
<td>Advanced Visual Basic.NET Laboratory</td>
<td>0.5</td>
</tr>
<tr>
<td>Total Units</td>
<td></td>
<td>7.0</td>
</tr>
</tbody>
</table>

Visual Basic.NET:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CISP 11</td>
<td>Programming in Visual Basic</td>
<td>3.0</td>
</tr>
<tr>
<td>CISP 11L</td>
<td>Programming in Visual Basic Lab</td>
<td>0.5</td>
</tr>
<tr>
<td>CISP 12</td>
<td>Advanced Visual Basic .NET</td>
<td>3.0</td>
</tr>
<tr>
<td>CISP 13</td>
<td>Advanced Visual Basic.NET Laboratory</td>
<td>0.5</td>
</tr>
<tr>
<td>Total Units</td>
<td></td>
<td>9.5</td>
</tr>
</tbody>
</table>

Java:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CISP 21</td>
<td>Programming in Java</td>
<td>3.0</td>
</tr>
<tr>
<td>CISP 21L</td>
<td>Programming in Java Lab</td>
<td>0.5</td>
</tr>
<tr>
<td>CISP 24</td>
<td>Advanced Java Programming</td>
<td>3.0</td>
</tr>
<tr>
<td>CISP 24L</td>
<td>Advanced Java Lab</td>
<td>0.5</td>
</tr>
</tbody>
</table>
| C++:
  | CISP 31    | Programming in C++                       | 3.0   |
  | CISP 31L   | Programming in C++ Lab                   | 0.5   |
  | CISP 34    | Advanced C++ Programming                 | 3.0   |
  | CISP 34L   | Advanced C++ Lab                         | 0.5   |
| Total Units|                                          | 9.0   |

CIS Professional Certificate in SQL
Business Division Certificate E0730
The SQL Server certificate is designed to prepare students for a career in database administration using SQL Server. The certificate offers a balanced set of classes that provides students skills in database design, data retrieval and database programming. Emphasis is placed on building databases; retrieving data; creating and maintaining database objects; writing stored procedures, functions and triggers for reusable software components. Students will demonstrate the ability to view and update databases and develop programs to automate database functions. Opportunities available after the completion of this certificate include SQL Server report writer, SQL Server developer and software engineer.

Required Courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CISD 21</td>
<td>Database Management</td>
<td>3.0</td>
</tr>
<tr>
<td>CISD 21L</td>
<td>Database Management</td>
<td>0.5</td>
</tr>
<tr>
<td>CISP 31</td>
<td>Database Management - Oracle</td>
<td>3.0</td>
</tr>
<tr>
<td>CISP 31L</td>
<td>Database Management - Oracle Lab</td>
<td>0.5</td>
</tr>
<tr>
<td>Total Units</td>
<td></td>
<td>10.0</td>
</tr>
</tbody>
</table>

CIS Professional Certificate in Telecommunications
Business Division Certificate E0718
The CIS Professional Certificate in Telecommunications program is designed to prepare students for a career in the computer networking industry. The certificate offers a balanced set of classes that prepare students to design, implement and manage the heterogeneous corporate network. The network administration courses emphasize network operating systems, network infrastructure, and data communications. Students will acquire the skills to install and administer a Windows network, Virtualization, Active Directory, group policy, file system security, DNS, DHCP, Cisco routers, switches, network infrastructure, access control list, Virtual LAN (VLAN) and VLAN routing. Individual courses will assist students in preparing for industry certification exams such as Network+, Microsoft MCITP and Cisco CCNA. Opportunities available upon completion of the certificate program include entry-level and mid-management positions in Network Administration.

Required Courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CISP 10</td>
<td>Principles of Object-Oriented Design</td>
<td>2.0</td>
</tr>
<tr>
<td>CISP 11</td>
<td>Programming in Visual Basic</td>
<td>3.0</td>
</tr>
<tr>
<td>CISP 11L</td>
<td>Programming in Visual Basic Lab</td>
<td>0.5</td>
</tr>
<tr>
<td>CISP 12</td>
<td>Advanced Visual Basic .NET</td>
<td>3.0</td>
</tr>
<tr>
<td>CISP 13</td>
<td>Advanced Visual Basic.NET Laboratory</td>
<td>0.5</td>
</tr>
<tr>
<td>Total Units</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

CIS Professional Certificate in Visual Basic Programming
Business Division Certificate E0719
The CIS Professional Certificate in Visual Basic Programming is designed to prepare students for a career in computer programming. The certificate offers a balanced set of classes that provides students client, server and database programming skills required by industry. Emphasis is placed on object-oriented programming applications, web based applications and implementing ASP.NET, ADO.NET and .NET Framework for reusable software components. Students will demonstrate the ability to design and implement a Visual Basic application that contains the client interface, the server implementation and the database. Opportunities available after the completion of this certificate include programming for systems, mobile applications, integration of systems and web applications.

Required Courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CISP 10</td>
<td>Principles of Object-Oriented Design</td>
<td>2.0</td>
</tr>
<tr>
<td>CISP 11</td>
<td>Programming in Visual Basic</td>
<td>3.0</td>
</tr>
<tr>
<td>CISP 11L</td>
<td>Programming in Visual Basic Lab</td>
<td>0.5</td>
</tr>
<tr>
<td>CISP 12</td>
<td>Advanced Visual Basic .NET</td>
<td>3.0</td>
</tr>
<tr>
<td>CISP 13</td>
<td>Advanced Visual Basic.NET Laboratory</td>
<td>0.5</td>
</tr>
<tr>
<td>Total Units</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Programs of Study Leading to a Certificate

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CISD 11L</td>
<td>Database Management - Microsoft Access Lab</td>
<td>0.5</td>
</tr>
<tr>
<td>or</td>
<td>Database Management - Microsoft SQL Server</td>
<td>3.0</td>
</tr>
<tr>
<td>CISD 21L</td>
<td>Database Management - Microsoft SQL Server Laboratory</td>
<td>0.5</td>
</tr>
<tr>
<td>or</td>
<td>Database Management - Oracle</td>
<td>3.0</td>
</tr>
<tr>
<td>CISD 31L</td>
<td>Database Management - Oracle</td>
<td>0.5</td>
</tr>
<tr>
<td>Total Units</td>
<td></td>
<td>15.0</td>
</tr>
</tbody>
</table>

#### CIS Professional Certificate in Windows Operating System Administration

**Required Courses:**
- CISW 21L Secure Web Programming with ASP.NET Laboratory 0.5
- CISW 24 Secure Server Side Web Programming 3.0
- CISW 24L Secure Server Side Web Programming 0.5

**Total Units:** 10.0

#### Select one combination of lecture-lab courses (3.5 Units)

- CISW 21 Secure Web Programming with ASP.NET 3.0
- CISW 21L Secure Web Programming with ASP.NET Laboratory 0.5
- CISW 24 Secure Server Side Web Programming 3.0
- CISW 24L Secure Server Side Web Programming 0.5

**Total Units:** 6.5

**Coaching**

**Kinesiology, Athletics and Dance Division**

**Certificate E0313**

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

**Required Courses:**
- DNCE 2B Ballet II 0.5
- DNCE 4 Choreography 0.5

**Total Units:** 16.5

**Dance Teacher**

**Kinesiology, Athletics and Dance Division**

**Certificate E0313**

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

**Required Courses:**
- HRM 52 Food Safety and Sanitation 1.5
- HRM 54 Basic Cooking Techniques 3.0
- HRM 81 Garde Manger 3.0
- HRM 82 Baking and Pastry 3.0
- HRM 83 International Cuisines 3.0

**Plus one (1) of the following: (3 Units)**
- NF 10 Nutrition for Personal Health and Wellness 3.0
- NF 20 Principles of Foods 3.0
- NF 25 Essentials of Nutrition 3.0
- NF 25H Essentials of Nutrition - Honors 3.0

**Total Units:** 16.5
Domestic Violence Certification
Technology and Health Division
Certificate 00366
Required Courses:
- AD 4 Issues in Domestic Violence 3.0
- Total Units 3.0

Electronic Assembly and Fabrication
Technology and Health Division
Certificate E0929
The Electronic Assembly and Fabrication Certificate is intended to prepare students to enter the electronics field as assembly and fabrication technicians. The program provides a series of courses to meet the needs of industry in assembly, soldering/de-soldering skills and fabrication for both through-hole and surface mount devices (SMD). Included are skills for various types of cabling and connections.
Electronic fundamentals (test instruments, basic electrical measurements, color-codes, schematic symbols, device outlines, etc.) are provided in the introductory courses. Complete surface mount technology (SMT) skills are taught with a culmination in the IPC7711/IPC7721 rework and repair of electronic assemblies certification. Recertification is required every two years.
Required Courses:
- ELEC 62 Advanced Surface Mount Assembly 2.0
- ELEC 60A Electronic Assemblies - Rework 2.0
- ELEC 60B Electronic Circuits (AC) 4.0
- EST 50 Electrical Fundamentals for Cable Installations 4.0
- Total Units 13.0

Emergency Medical Technician
EMT 90
Technology and Health Division
Certificate E0378
Approved by the Los Angeles County and State Departments of Health. Emphasizes the development of skills to recognize symptoms of illnesses and injuries as well as the proper procedures of pre-hospital emergency care. Awards an EMT Course Completion Certificate necessary for many jobs in emergency care and is prerequisite for entry into a Paramedic program or most fire department jobs.
Required Courses:
- EMT 90 Emergency Medical Technician 8.0
- EMT 90-A Introduction to EMS System 2.0
- Total Units 10.0
Special Information:
- Completion of the required course, which includes both written and practical qualifying examinations, will award the student an EMT Course Completion Certificate. Students are then eligible for certification by taking and passing the National Registry EMT certifying exam. This course is a prerequisite for the Paramedic Program and is required by most fire departments before the student may be hired as a firefighter.

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

Selection Procedure:
The course is open to all students who meet the application requirements. All applicants are required to meet the Essential Functions in the Emergency Medical Technician Program.
Physical Demands:
- • Perform prolonged, extensive or considerable standing/walking, lifting, positioning, pushing, and/or transferring patients
- • Possess the ability to perform fine motor movements with hands and fingers
- • Possess the ability for extremely heavy effort (lift and carry at least 125 pounds)
- • Perform considerable reaching, stooping, bending, kneeling and crouching

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

Working Environment:
- • May be exposed to infectious and contagious disease, without prior notification
- • Regularly exposed to the risk of blood borne diseases
- • Exposed to odorous chemicals and specimens
- • Subject to hazards of flammable, explosive gases
- • Subject to burns and cuts
- • Contact with patients having different religious, culture, ethnicity, race, sexual orientation, psychological and physical disabilities, and under a wide variety of circumstances
Programs of Study Leading to a Certificate

- Handle emergency or crisis situations
- Subject to many interruptions
- Requires decisions/actions related to end of life issues
- Exposure to products containing latex

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

c) File a College application and be accepted as a student at Mt. San Antonio College.
d) A physical examination including drug screen, proof of certain immunizations, current certification in CPR, and a criminal background check are required of all students prior to entrance into the clinical setting. Forms and information will be provided upon entry into the course.
e) Advised to take either Fire 1 or Fire 13 prior to entry into EMT 95.

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

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

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

Working Environment:
• May be exposed to infectious and contagious disease, without prior notification
• Regularly exposed to the risk of blood borne diseases
• Exposed to odorous chemicals and specimen
• Subject to hazards of flammable, explosive gases
• Subject to burns and cuts

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

Emergency Medical Technician EMT 95

Technology and Health Division
Certificate E0367

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

Required Courses:
- EMT 95 EMT for Fire Technology 8.0
- Total Units 8.0

Special Information:
To remain in the program, student must maintain a grade of “C” or better in the course. Completion of the required course, which includes both written and practical qualifying examinations, will award the student an EMT Course Completion Certificate. Students are then eligible for certification by taking and passing the National Registry EMT certifying exam. This course is a prerequisite for the Paramedic Program and is required by most fire departments before the student may be hired as a firefighter.

Application Requirements and Selection Procedures

Application Requirements:
- Applicant must be 18 years of age upon entrance into the course.
- High school graduate or equivalent.

Fashion Computer Aided Design

Business Division
Certificate E0383

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

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

Fire Officer Certification

Technology and Health Division
Certificate E0381

The Fire Officer Certificate is intended for in-service firefighters preparing for promotion. It meets the prerequisite educational requirements for fire officer promotional exams.

Required Courses:
- FIRE 100 Fire Prevention: Company Officer’s Fire & Life Safety Inspections 1.5

Total Units 15.0

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

Fitness Specialist/Personal Trainer Kinesiology, Athletics and Dance Division
Certificate E0808

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

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

Business Division
Certificate E0380
This curriculum is designed for returning CIS professionals with several years of experience or current students who have completed several CIS courses. This certificate will give students skills that are necessary to obtain jobs in game programming. Students will learn different software packages for developing games as well as general programming skills.

Required Courses:
- CISP 10 Principles of Object-Oriented Design 2.0
- CISP 31 Programming in C++ 3.0
- CISP 31L Programming in C++ Laboratory 0.5
- CISP 61 Introduction to Game Programming 3.0
- CISP 61L Introduction to Game Programming Laboratory 0.5

Total Units: 11.0

CISP 62 Introduction to OpenGL 3.0
CISP 62L Introduction to OpenGL Laboratory 0.5
Total Units: 12.5

Graphic Design Level I

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

Required Courses:
- ARTG 20 Art, Artists and Society 3.0
- ARTG 21A Introduction to Exhibition Production 3.0
- ARTG 21B Intermediate Exhibition Production 3.0

The following course to be taken twice—once as an off-campus experience and once as an on-campus experience (2 Units)

ARTG 22A Exhibition Design and Art Gallery Operation Work Experience 1.0
- ARTC 100 Graphic Design I 3.0
- PLUS select one (1) course from:
  - AHIS 5 History of Western Art: Renaissance Through Modern 3.0
  - AHIS 6 History of Modern Art 3.0

Total Units: 17.0

Horse Ranch Management - Level I

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

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

Total Units: 11.0

Hospitality: Event Planning and Catering

Business Division
Certificate E0379
The Catering Certificate prepares students for entry-level positions in catering companies, banquets facilities, hotels, convention centers, fairgrounds and event planning companies. Students gain practical and management training in: food safety and sanitation, food production, menu development, developing catering business plans, client meeting techniques, contract creation and banquet event order development. Students who successfully complete the requirements for this certificate will also earn the Food Protection Manager Certification from the National Restaurant Association upon passing the ServSafe Exam.

Required Courses:
- HRM 51 Introduction to Hospitality 3.0
- HRM 54 Basic Cooking Techniques 3.0
- HRM 61 Menu Planning 3.0
- HRM 62 Event Planning and Catering 3.0

Total Units: 10.5

Hospitality: Food Services

Business Division
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.

Required Courses:
- HRM 51 Introduction to Hospitality 3.0
- HRM 52 Food Safety and Sanitation 1.5
- HRM 53 Dining Room Service Management 3.0

Total Units: 7.5

Hospitality: Restaurant Management - Level I

Business Division
Certificate E1332
The Hospitality: Restaurant Management - Level I Certificate prepares students for entry-level positions in the hospitality industry. Students receive training in dining room service management and lodging operations. Students who successfully complete the requirements for this certificate will also be required to complete a minimum of 60 non-paid or 75 paid hours of work experience in the hospitality industry.

Required Courses:
- HRM 51 Introduction to Hospitality 3.0
- HRM 52 Food Safety and Sanitation 1.5
- HRM 53 Dining Room Service Management 3.0
- HRM 70 Introduction to Lodging 3.0
- HRM 91 Hospitality Work Experience 1.0

Total Units: 10.0

Hospitality: Restaurant Management Level II (L1325)

Hospitality: Hospitality Management - Level I

Business Division
Certificate E1332
The Hospitality: Hospitality Management - Level I Certificate prepares students for entry-level positions in the hospitality industry. Students receive training in dining room service management and lodging operations. Students who successfully complete the requirements for this certificate will also be required to complete a minimum of 60 non-paid or 75 paid hours of work experience in the hospitality industry.

Required Courses:
- HRM 51 Introduction to Hospitality 3.0
- HRM 52 Food Safety and Sanitation 1.5
- HRM 53 Dining Room Service Management 3.0
- HRM 70 Introduction to Lodging 3.0
- HRM 91 Hospitality Work Experience 1.0

Total Units: 8.5

Hospitality: Hospitality Management Level II (L1325)
Hospitality: Restaurant Management - Level II
Business Division
Certificate E0343
The Restaurant Management - Level II Certificate prepares students for mid-level or Manager-In-Training positions in restaurants, catering, hotel food and beverage outlets, theme parks and other food service businesses. Students gain practical and management training in: food safety and sanitation, food production, dining room service management, menu development and cost volume analysis. Students who successfully complete the requirements for this certificate will also earn the Food Protection Manager Certification from the National Restaurant Association upon passing the ServSafe Exam.

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

Total Units 17.5

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

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

Total Units 9.0

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

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

Total Units 9.0

Interior Design Level II (T0304), Level III (T0305)

Introduction to Computer Information Technology
Business Division
Certificate E0712
The Introduction to Computer Information Technology certificate is designed to prepare students for careers that require the understanding and use of computer technology. The certificate offers a balanced set of classes that enables students to become proficient with business software such as Word, Excel and Access; implement security techniques to protect computer systems from malware; maintain a computer using utility programs, and create web sites. Emphasis is placed on developing formatted documents; using spreadsheets to enter, calculate and graph data; using a database to store and retrieve data and to create forms, reports and queries; protecting a computer's hardware and software, and using HTML and web page editors to create and publish multimedia web sites. Students will demonstrate the ability to use software to solve business problems and create commercial web sites. Although the completion of this certificate may not qualify a student for a job in the computer industry, it would complement a degree such as business or engineering that requires computer skills.

Required Courses:
CISB 11 Computer Information Systems 3.5
CISB 15 Microcomputer Applications 3.5

Total Units 7.0

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

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

Total Units 13.0

LVN 30-Unit Option – Career Mobility Track
Technology and Health Division
Certificate E1202
In keeping with Section 1429 of the Board of Registered Nursing Rules and Regulations, completion of this program entitles the student to apply for examination for licensure as a Registered Nurse in the State of California. This option is specifically designed for California licensees. Other states do not have this provision in their laws; therefore, endorsement for licensure may not be granted.

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

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.

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 current, active 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 Healthcare Provider CPR certification
8. Criminal background check and drug screening must be completed prior to any patient contact
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.)

Required Courses:
NURS 5 Psychiatric Nursing 3.0
NURS 8 Medical-Surgical Nursing: Circulation and Oxygenation 5.0
NURS 5: Psychiatric Nursing  
FUNCTIONS FOR SUCCESS IN THE NURSING PROGRAM.

PSYC 1A must be completed prior to entrance into

ALL APPLICANTS ARE REQUIRED TO MEET THE ESSENTIAL safety and to complete classes successfully. The Microcomputer Productivity Software certifcate is

NURS 11 Preceptorship in Nursing 2.0 General for welfare or Social Security fraud, as well as admission into the Nursing program, students must be

NURS 9 Leadership in Nursing 1.0 ginning the clinical portion of the program, they will

been admitted to the Nursing program and before be- death of a patient

Students should also be aware that once they have

Students applying for admission to the Nursing Program

Selection Process: Physical Demands:

• Performing prolonged, extensive, or considerable standing/ walking, lifting positioning, pushing, and/or transferring patients
• Performing the ability to perform fine motor movements with hands and fingers
• Performing the ability for extremely heavy effort (lift/ carry 50 lbs. or more)
• Performing considerable reaching, stooping, bending, kneeling, and crouching

Sensory Demands: (may be corrected with adaptive device)

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

Working Environment:

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

• Exposed to products containing latex

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

Machine Operator  
Technology and Health Division  
Certificate E0956

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

Required Courses:

MFG 10  Mathematics & Blueprint Reading for Manufacturing 3.0
MFG 11  Manufacturing Processes I 2.0
MFG 12  Manufacturing Processes II 2.0
MFG 38  MasterCAM I 2.0
MFG 85  Manual Computerized Numerical Control (CNC) Programming 2.0
Total Units 11.0

MasterCAM  
Technology and Health Division  
Certificate E0927

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

Required Courses:

MFG 11  Manufacturing Processes I 2.0
MFG 38  MasterCAM I 2.0
MFG 38B  MasterCAM II 2.0
MFG 85  Manual Computerized Numerical Control (CNC) Programming 2.0
Total Units 8.0

Microcomputer Productivity Software  
Business Division  
Certificate E0336

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

Required Courses:

CISB 15  Microcomputer Applications 3.5
CISB 21  Microsoft Excel 3.0
CISB 51  Microsoft PowerPoint 3.0
CISD 11  Database Management 3.0
- Microsoft Access
CISD 11L  Database Management 0.5
- Microsoft Access Lab
CISN 21  Windows Operating Software 4.0
Total Units 17.0
Programs of Study Leading to a Certificate

Nutrition

Business Division
Certificate E0353
This certificate is designed to give students basic knowledge and skills in nutrition science, food science, food preparation, and food safety and sanitation. These core courses provide the necessary skills for those seeking entry-level employment as nutrition assistants or dietary service workers in hospital or school food service or with community agencies such as The Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) and Head Start.

Required Courses:
HRM 52 Food Safety and Sanitation 1.5
NF 1 Introduction to Nutrition as a Career 1.5
NF 20 Principles of Foods 3.0
NF 25 Essentials of Nutrition 3.0
or
NF 25H Essentials of Nutrition - Honors 3.0
Total Units 9.0

Recommended Elective
NF 91 Work Experience in Nutrition and Dietetics 1.0 - 3.0

Pilates Professional Teacher Training Phase I: Mat and Reformer

Kinesiology, Athletics and Dance Division
Certificate E0335
The Pilates Professional Teacher Certification prepares students for careers as Pilates instructors/trainers in professional Pilates studios, dance studios, corporate fitness facilities, wellness centers, public/private health clubs and private training in a home studio. The certificate curriculum meets the standards of the Pilates Method Alliance and includes lecture, study, and teaching hours.

Phase I covers Pilates theory and the Mat and Reformer repertoire of exercises.

Required Courses:
DN-T 27 Theory and Principles of Pilates 3.0
DN-T 28 Functional Anatomy for Pilates 2.0
DN-T 29 Teaching Pilates Mat Repertoire 1.5
DN-T 30 Teaching Pilates Reformer Repertoire 1.5
DN-T 31 Pilates Teaching-Mat and Reformer 3.0

Programming In Visual Basic

Business Division
Certificate E0335
The Programming in Visual Basic Certificate is designed to prepare students for a career in computer programming. The certificate offers a balanced set of classes that provides students the client, server and database programming skills required by industry. Emphasis is placed on object-oriented programming applications, web-based applications, and implementing ASP.NET, ADO.NET and .NET Framework for reusable software components. Students will demonstrate the ability to design and implement a Visual Basic application that contains the client interface, the server implementation and the database. Opportunities available after the completion of this certificate include programming for systems, mobile applications, integration of systems and web applications.

Required Courses:
CISB 11 Computer Information Systems 3.5
CISD 11 Database Management 3.0
CISD 11L Database Management Lab 0.5
CISM 11 Systems Analysis and Design 3.5
CISP 11 Programming in Visual Basic 3.0
CISP 11L Programming in Visual Basic Laboratory 0.5
CISP 14 Advanced Visual Basic .NET 3.0
CISP 14L Advanced Visual Basic .NET Laboratory 0.5
Total Units 17.5

Radio Broadcasting: Behind-the-Scenes - Level I

Arts Division
Certificate E0372
This multi-level certificate program prepares students to enter the field of broadcasting in a behind-the-scenes capacity. The Level I Radio Broadcasting Behind-the-Scenes Certificate provides an overview of the fundamental skills essential to the field as well as the business and legal aspects of the industry.

Required Courses:
R-TV 01 Introduction to Electronic Media 3.0
R-TV 09 Broadcast Sales and Promotion 3.0
R-TV 10 Radio Programming and Producer Techniques 3.0
R-TV 11A Beginning Radio Production 3.0
R-TV 15 Broadcast Law and Business Practices 3.0
Total Units 15.0

# Radio Broadcasting: Behind-the-Scenes (T0606)

Radio Broadcasting: On-Air - Level I

Arts Division
Certificate E0371
This multi-level certificate program prepares students to enter the field of on-air radio broadcasting and related areas. The Level I Radio Broadcasting On-Air Certificate provides an overview of fundamental skills essential to the field as well as the business and legal aspects of the industry.

Required Courses:
R-TV 01 Introduction to Electronic Media 3.0
R-TV 02 On-Air Personality Development 3.0
R-TV 05 Radio-TV Newswriting 3.0
R-TV 11A Beginning Radio Production 3.0
R-TV 15 Broadcast Law and Business Practices 3.0
Total Units 15.0

# Radio Broadcasting: On-Air Level III (L0350)

Real Estate Sales Certificate

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

Required Courses:
BUSR 50 Real Estate Principles 3.0
BUSR 52 Real Estate Practice 3.0

Plus select one (1) course from: (3-5 Units)
BUS 7 Principles of Accounting - Financial 5.0
BUS 11 Fundamentals of Accounting 3.0
BUSC 1A Principles of Economics 3.0
- Macroeconomics
BUSL 18 Business Law 3.0
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 60 Real Estate Investment Planning 3.0
BUSR 62 Mortgage Loan Brokering and Lending 3.0
BUSR 76 Escrow Procedures I 3.0
BUSR 81 Appraisal: Principles and Procedures 3.5
PLGL 40 Landlord-Tenant Law 3.0

Total Units 9.0 - 11.0
Welding
Technology and Health Division
Certificate E0919
This program is designed to prepare the student for employment in the broad field of welding and (1) leads to occupations in manufacturing and repair; and (2) helps prepare the student for positions in supervision.
Courses in the welding curriculum prepare students for welding certificates. The College is a testing agency for the City of Los Angeles, and is authorized to administer the performance test for the Structural Welding certificate. There is a $50 charge for students and $60 for nonstudents to take this test. Topics of the written portion of the test which is administered by the City are reviewed in various welding courses offered by the College.

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

Total Units 8.0

Recommended Electives:
- WELD 60 Print Reading and Computations 3.0
- WELD 70C Certification for Welders 3.0

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

CERTIFICATES OF ACHIEVEMENT

Accounting
Business Division
Certificate L0374
The Accounting Certificate provides basic accounting skills combined with in-depth training in a variety of accounting concepts, preparing the student for entry-level positions and/or professional advancement in a wide selection of accounting jobs. These jobs include general accounting, cost accounting, payroll, inventory management, asset management, accounts receivable, accounts payable, budgets and forecast, financial analysis, etc.

Required Courses:
- BUSA 7 Principles of Accounting - Financial 5.0
- BUSA 21 Cost Accounting 4.5
- BUSA 58 Federal Income Tax Law 3.0
- BUSA 52 Intermediate Accounting 3.0
- BUSA 75 Using Microcomputers in Financial Accounting 1.0
- BUSA 76 Using Microcomputers in Managerial Accounting 1.0
- BUSM 20 Principles of Business 3.0

Total Units 21.0 - 22.5

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

Required Courses:
- BUSA 7 Principles of Accounting - Financial 5.0
- BUSA 72 Bookkeeping - Accounting 5.0
- BUSA 75 Using Microcomputers in Financial Accounting 1.0
- BUSA 76 Using Microcomputers in Managerial Accounting 1.0
- BUSM 20 Principles of Business 3.0
- CISB 15 Microcomputer Applications 3.5

PLUS select a minimum of 7.5 Units from the following:
- Note: CISD 11 & CISD 11L must be taken together
- CISB 11 Computer Information Systems 3.5
- CISB 16 Macintosh Applications 2.0
- CISB 21 Microsoft Excel 3.0
- CISB 31 Microsoft Word 3.0
- CISB 51 Microsoft PowerPoint 3.0
- CISD 11 Database Management 3.0
- CISD 11L Database Management 0.5
- CIS 11 Practical Computer Security 2.0

Total Units 18.0 - 20.0

Accounting - Financial Planning
Business Division
Certificate L0599
The Accounting - Financial Planning Certificate provides basic accounting skills and knowledge combined with specialized training in financial planning, preparing the student for entry-level positions and/or professional advancement in their current accounting jobs. Students completing this certificate will be able to perform duties in the areas of cost analysis, variance analysis, budget preparation, expense reporting, account analysis, and preparation of various internal reports to assist management in their decision making.

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

Total Units 18.5

Administrative Assistant - Level II
Business Division
Certificate L0594
The Level II Certificate prepares students for clerical positions where, in addition to general office skills, written communication and advanced word processing skills are needed.

Required Courses:
- Completion of the Administrative Assistant - Level 1 coursework as follows: (9.5 Units)
- CISB 10 Office Skills 3.0
- CISB 15 Microcomputer Applications 3.5
- CISB 31 Microsoft Word 3.0

PLUS the level II coursework as follows: (9 Units)
- BUSO 25 Business Communications 3.0
- BUSO 28 Microsoft Excel 3.0
- BUSO 51 Microsoft PowerPoint 3.0

Total Units 18.5
Programs of Study Leading to a Certificate

Administrative Assistant - Level III
Business Division
Certificate L0382
The Level III Certificate prepares students for administrative assistant positions where a variety of skills are needed.

Required Courses:
Completion of the Administrative Assistant - Level I coursework as follows: (9.5 Units)
CISB 10 Office Skills 3.0
CISB 15 Microcomputer Applications 3.5
CISB 31 Microsoft Word 3.0
Completion of the Administrative Assistant - Level II coursework as follows: (9 Units)
BUSO 25 Business Communications 3.0
CISB 21 Microsoft Excel 3.0
CISB 51 Microsoft PowerPoint 3.0
PLUS the level III coursework as follows:
CISB 16 Macintosh Applications 2.0
BUSO 26 Oral Communications for Business 3.0

Select one (1) course or any one (1) combination lecture-lab course from the following:
CISD 11 Database Management - Microsoft Access 3.0
CISD 11L Database Management - Microsoft Access Laboratory 0.5
CISN 21 or Windows Operating System 3.0
CISS 11 or Practical Computer Security 2.0
CISW 15 or Web Site Development 3.5

Total Units 25.5 - 27.5

Air Conditioning and Refrigeration
Technology and Health Division
Certificate T0909
This program is designed to prepare the student for employment in the broad field of air conditioning, heating, and refrigeration. It leads to occupations in design, manufacturing, operation, sales, distribution, installation, maintenance, and repair. Students desiring a Bachelor's Degree (transfer program) should consult with an advisor to discuss transferability of courses.

Required Courses:
AIRC 10 Technical Mathematics in Air Conditioning and Refrigeration 2.0
AIRC 11 Welding for Air Conditioning and Refrigeration 2.0
AIRC 12 Air Conditioning Codes and Standards 3.0
AIRC 20 Refrigeration Fundamentals 4.0
AIRC 25 Electrical Fundamentals 5.0
AIRC 26 Gas Heating Fundamentals 2.0
AIRC 30 Heat Load Calculations & Design 4.0
AIRC 31 Commercial Electrical for Air Conditioning and Refrigeration 4.0
AIRC 32A Air Properties and Measurement 1.5
AIRC 34 Advanced Mechanical Refrigeration 4.0

Total Units 31.5

Aircraft Powerplant Maintenance Technology - Day
Certificate T0982
Technology and Health Division
This program prepares students to enter employment as a certified powerplant technician in the aircraft maintenance industry. Training is given in the overhaul of various powerplants and their components. Completion of this program leads to an Associate in Science Degree or a Certificate. Excellent opportunities for employment exist in this area of training. Certain administrative, quality control, and flight personnel careers require the applicant to hold a valid A & P Certificate.

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

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

Required Courses:
AIRM 65A Aircraft Powerplant Maintenance Technology 13.0
AIRM 65B Aircraft Powerplant Maintenance Technology: Reciprocating and Turbine Technology 13.0
AIRM 70A Aircraft Maintenance Electricity and Electronics 3.0
AIRM 70B Aircraft Maintenance Electricity and Electronics 3.0
AIRM 71 Aviation Maintenance Science 6.0
AIRM 72 Aircraft Materials and Processes 1.5
AIRM 73 Aircraft Welding 1.5

Total Units 41.0

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

Aircraft Powerplant Maintenance Technology - Evening
Certificate T0952
Technology and Health Division
This program prepares students to enter employment as a certified powerplant technician in the aircraft maintenance industry. Training is given in the overhaul of various powerplants and their components. Completion of this program leads to an Associate in Science Degree or a Certificate. Excellent opportunities for employment exist in this area of training. Certain administrative, quality control, and flight personnel careers require the applicant to hold a valid A & P Certificate.

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

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

Required Courses:
AIRM 65A Aircraft Powerplant Maintenance Technology 13.0
AIRM 65B Aircraft Powerplant Maintenance Technology: Reciprocating and Turbine Technology 13.0
AIRM 70A Aircraft Maintenance Electricity and Electronics 3.0
AIRM 70B Aircraft Maintenance Electricity and Electronics 3.0
AIRM 71 Aviation Maintenance Science 6.0
AIRM 72 Aircraft Materials and Processes 1.5
AIRM 73 Aircraft Welding 1.5

Total Units 41.0

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

Air Conditioning and Refrigeration and Powerplant
Technology and Health Division
Certificate T0969
This program ofers a day or evening program option. The only difference between the two options is the course numbering and time required to complete the program. Day program courses AIRM 65A and 65B are equivalent to evening program courses AIRM 95A, 95B, 96A, 96B, 97A, 97B, 98A, and 98B. Day program courses AIRM 66A and 66B are equivalent to evening program courses AIRM 90A, 90B, 91A, 91B, 92A, 92B, 93A, and 93B.

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

Required Courses:
AIRM 65A Aircraft Powerplant Maintenance Technology 13.0
AIRM 65B Aircraft Powerplant Maintenance Technology: Reciprocating and Turbine Technology 13.0
AIRM 70A Aircraft Maintenance Electricity and Electronics 3.0
AIRM 70B Aircraft Maintenance Electricity and Electronics 3.0
AIRM 71 Aviation Maintenance Science 6.0
AIRM 72 Aircraft Materials and Processes 1.5
AIRM 73 Aircraft Welding 1.5

Total Units 41.0

Recommended Electives:
AIRM 74 Aircraft Maintenance Technology - Work Experience 2.0
AIRM 80 Lab Studies in Aircraft Maintenance Technology 0.5
PHYS 1 Physics 4.0
Airframe Maintenance Technology - Day
Certificate T0991
Technology and Health Division
This program prepares students to enter employment as a certified airframe technician in the aircraft maintenance industry. Training is given in the overhaul of various airframes and their components. Completion of this program leads to an Associate in Science Degree or a Certificate. Excellent opportunities for employment exist in this area of training. Certain administrative, quality control, and flight personnel careers require the applicant to hold a valid A & P Certificate.

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

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

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

**Total Units** 41.0

**Recommended Electives**
- AIRM 74 Aircraft Maintenance Technology - Work Experience 2.0
- AIRM 90A Airframe Maintenance Technology: Structure and Design 3.0
- AIRM 90B Airframe Maintenance Technology 3.0
- PHYS 1 Physics 4.0
- AIRM 80 Lab Studies in Aircraft Maintenance 0.5

**Airframe Maintenance Technology - Evening**
Certificate T0981
This program prepares students to enter employment as a certified airframe technician in the aircraft maintenance industry. Training is given in the overhaul of various airframes and their components. Completion of this program leads to an Associate in Science Degree or a Certificate. Excellent opportunities for employment exist in this area of training. Certain administrative, quality control, and flight personnel careers require the applicant to hold a valid A & P Certificate.

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

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

**Required Courses:**
- AIRM 66A Aircraft Airframe Maintenance Technology 13.0
- AIRM 66B Aircraft Maintenance Technology 13.0
- AIRM 70A Aircraft Maintenance Electricity 3.0
- AIRM 70B Aircraft Maintenance Electricity and Electronics 3.0
- AIRM 71 Aviation Maintenance Science 6.0
- AIRM 72 Aircraft Materials and Processes 1.5
- AIRM 73 Aircraft Welding 1.5
- AIRM 90A Airframe Maintenance Technology 3.0
- AIRM 90B Airframe Maintenance Technology: Structure and Design 3.0
- PHYS 1 Physics 4.0
- AIRM 80 Lab Studies in Aircraft Maintenance 0.5

**Alcohol/Drug Counseling Technology and Health Division**
Certificate T2101
Upon completion of the required courses with a grade of “C” or better, a Certificate in Alcohol/Drug Studies will be awarded by the Technology and Health Division.

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

**Total Units** 41.0

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

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

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

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

**Animation – 3D and CG Gaming**

**Arts Division**

**Certificate T0302**

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

The Animation Program offers an integrated/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.

**Required Courses:**
- ANIM 101A Drawing - Gesture and Figure 3.0
- ANIM 104 Drawing Fundamentals 3.0
- ANIM 108 Principles of Animation 3.0
- ANIM 115 Storyboarding 3.0
- ANIM 116 Character Development 1.5
- ANIM 130 Introduction to 3D Modeling 3.0
- ANIM 131 Introduction to Gaming 3.0
- ANIM 132 Intermediate 3D Modeling 3.0
- ANIM 136 Animation Environment and Level Design 3.0
- ANIM 145 Advanced 3-D Modeling 3.0
- ANIM 148 Demo - Reel 3.0
- ARTC 100 Graphic Design I 3.0

**Required Electives**

Select one (1) of the following: (3 Units)
- ANIM 146 Advanced 3-D Animation 3.0
- ANIM 149 3-D Character Rigging 3.0

**Total Units** 37.5

**Recommended Electives**
- ANIM 109 Advanced Principles of Animation 3.0
- ANIM 137A Work Experience in New Digital Media 1.0
- ANIM 172 Motion Graphics, Compositing and Visual Effects 3.0
- ANIM 175 Web Animation With Flash 3.0
- ARTC 290 Portfolio 3.0
- ARTD 17A Drawing: Life 3.0
- ARTD 20 Design: Two-Dimensional 3.0
- PHOT 10 Basic Digital and Film Photography 3.0

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

**Arts Division**

**Certificate L0340**

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

**Required Courses:**
- Completion of Animation - Game & Interactive Multimedia Design Level I coursework (12 Units)
- ANIM 100 Digital Paint and Ink 3.0
- or ARTC 100 Graphic Design I 3.0
- ANIM 131 Introduction to Gaming 3.0
- ANIM 172 Motion Graphics, Compositing and Visual Effects 3.0
- ANIM 175 Web Animation With Flash 3.0
- PLUS the following courses (9 Units)
- ANIM 141 2D Game Level Design 3.0
- ANIM 148 Demo Reel 3.0

**Total Units** 24.0

**Recommended Electives:**
- ANIM 137A Work Experience in New Digital Media 1.0
- ARTD 17A Drawing: Life 3.0
- ARTD 16 Drawing: Perspective 3.0

**Architecture Design Concentration Level I**

**Technology and Health Division**

**Certificate T0384**

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

**Required Courses:**
- Completion of the Architecture - Tradigital Level I coursework (15 Units)
- ANIM 101A Drawing - Gesture and Figure 3.0
- ANIM 108 Principles of Animation 3.0
- ANIM 111A Animal Drawing 1.5
- ANIM 115 Storyboarding 3.0
- ANIM 116 Character Development 1.5
- ANIM 104 Drawing Fundamentals 3.0
- or ARTD 15A Drawing: Beginning 3.0
- PLUS the following Level II coursework (9 Units)
- ANIM 175 Web Animation with Flash 3.0
- ANIM 100 Digital Paint and Ink 3.0
- or ARTC 100 Graphic Design I 3.0
- ARC 290 Portfolio 3.0
- or ANIM 148 Demo Reel 3.0

**Total Units** 20.0

**Specific Information:**

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

**Architecture Design Concentration Level II**

**Technology and Health Division**

**Certificate T0385**

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.

**Required Courses:**
- Completion of the Architectural Technology Level I coursework (20 Units)
- ARCH 101 Design I - Elements of Design 4.0
- ARCH 102 Design II - Architectural Design 4.0
- ARCH 121 CADD and Digital Media Level I 4.0
- ARCH 122 Architectural Presentations 4.0
- ARCH 141 Design Drawing and Communication 4.0
- Plus the following courses: (11 Units)
- ARCH 142 Architectural Materials and Specifications 4.0
- ARCH 201 Design III Environmental Design 4.0
- ARCH 250 World Architecture I 3.0

**Total Units** 31.0

**Architectural Design Concentration Level II**

**Technology and Health Division**

**Certificate T0384**

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

**Required Courses:**
- Completion of the Architecture - Tradigital Level I coursework (15 Units)
- ANIM 101A Drawing - Gesture and Figure 3.0
- ANIM 108 Principles of Animation 3.0
- ANIM 111A Animal Drawing 1.5
- ANIM 115 Storyboarding 3.0
- ANIM 116 Character Development 1.5
- ANIM 104 Drawing Fundamentals 3.0
- or ARTD 15A Drawing: Beginning 3.0
- PLUS the following Level II coursework (9 Units)
- ANIM 175 Web Animation with Flash 3.0
- ANIM 100 Digital Paint and Ink 3.0
- or ARTC 100 Graphic Design I 3.0
- ARC 290 Portfolio 3.0
- or ANIM 148 Demo Reel 3.0

**Total Units** 20.0

**Specific Information:**

Students receiving financial aid need to declare the level III certificate as their goal to meet Financial Aid requirements.
Architectural Design
Concentration Level III
Technology and Health Division
Certificate T0386

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

Required Courses:
Completion of the Architectural Technology Design Concentration Level I and Level II coursework: (31 Units)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARCH 101</td>
<td>Design I - Elements of Design</td>
<td>4.0</td>
</tr>
<tr>
<td>ARCH 121</td>
<td>CAD and Digital Media Level I</td>
<td>4.0</td>
</tr>
<tr>
<td>ARCH 141</td>
<td>Design Drawing and Communication</td>
<td>4.0</td>
</tr>
<tr>
<td>ARCH 102</td>
<td>Design II Architectural Design</td>
<td>4.0</td>
</tr>
<tr>
<td>ARCH 122</td>
<td>Architectural Presentations</td>
<td>4.0</td>
</tr>
<tr>
<td>ARCH 142</td>
<td>Architectural Materials and Services</td>
<td>4.0</td>
</tr>
<tr>
<td>ARCH 250</td>
<td>World Architecture I</td>
<td>3.0</td>
</tr>
<tr>
<td>ARCH 201</td>
<td>Design III Environmental Design</td>
<td>4.0</td>
</tr>
<tr>
<td>PLUS the following courses: (10 Units)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ARCH 202</td>
<td>Design IV Advanced Project</td>
<td>4.0</td>
</tr>
<tr>
<td>ARCH 221</td>
<td>Architectural Illustration</td>
<td>3.0</td>
</tr>
<tr>
<td>ARCH 251</td>
<td>World Architecture II</td>
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<tr>
<td>Total Units</td>
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</tr>
</tbody>
</table>

Architectural Design
Concentration Level II
Technology and Health Division
Certificate T0389

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

Required Courses:
Architectural Technology Concentration Level I coursework: (28 Units)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARCH 101</td>
<td>Design I - Elements of Design</td>
<td>4.0</td>
</tr>
<tr>
<td>ARCH 121</td>
<td>CAD and Digital Media Level I</td>
<td>4.0</td>
</tr>
<tr>
<td>ARCH 141</td>
<td>Design Drawing and Communication</td>
<td>4.0</td>
</tr>
<tr>
<td>ARCH 142</td>
<td>Architectural Materials and Specifications</td>
<td></td>
</tr>
<tr>
<td>ARCH 147</td>
<td>Architectural CAD and BIM</td>
<td>3.0</td>
</tr>
<tr>
<td>ARCH 145</td>
<td>Building and Zoning Codes</td>
<td>3.0</td>
</tr>
<tr>
<td>ARCH 247</td>
<td>Architectural CAD Working Drawings</td>
<td>3.0</td>
</tr>
<tr>
<td>INS 70</td>
<td>Elements of Construction</td>
<td>3.0</td>
</tr>
<tr>
<td>PLUS the following courses: (9 Units)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ARCH 146</td>
<td>Architectural Drawings and Fabrications</td>
<td></td>
</tr>
<tr>
<td>EDT 26</td>
<td>Civil Engineering Technology and CAD</td>
<td>3.0</td>
</tr>
<tr>
<td>INS 71</td>
<td>Construction Estimating</td>
<td>3.0</td>
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<tr>
<td>Total Units</td>
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<td>37.0</td>
</tr>
</tbody>
</table>

Building Automation
Technology and Health Division
Certificate T0309

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

Required Courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AIR 20</td>
<td>Refrigeration Fundamentals</td>
<td>4.0</td>
</tr>
<tr>
<td>AIR 25</td>
<td>Electrical Fundamentals</td>
<td>5.0</td>
</tr>
<tr>
<td>AIR 31</td>
<td>Commercial Electrical</td>
<td>4.0</td>
</tr>
<tr>
<td>AIR 34</td>
<td>Advanced Mechanical Refrigeration</td>
<td>4.0</td>
</tr>
<tr>
<td>AIR 61</td>
<td>Building Automation Fundamentals</td>
<td>2.5</td>
</tr>
<tr>
<td>AIR 65</td>
<td>Building Automation Networks</td>
<td>3.0</td>
</tr>
<tr>
<td>AIR 67</td>
<td>Energy Management</td>
<td>4.0</td>
</tr>
<tr>
<td>ELEC 11</td>
<td>Technical Applications</td>
<td>3.0</td>
</tr>
<tr>
<td>CISW 41</td>
<td>XML Secure Programming</td>
<td>3.0</td>
</tr>
<tr>
<td>CNET 56</td>
<td>Computer Networks</td>
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<tr>
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<td>36.5</td>
</tr>
</tbody>
</table>

Business: Human Resource Management - Level III
Business Division
Certificate L0535

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

Required Courses:
Completion of Business: Human Resource Management - Level I and Level II coursework. Level I as follows: (9 Units)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUSM 20</td>
<td>Principles of Business</td>
<td>3.0</td>
</tr>
<tr>
<td>BUSM 61</td>
<td>Business Organization</td>
<td>3.0</td>
</tr>
<tr>
<td>BUSM 62</td>
<td>Human Resource Management</td>
<td>3.0</td>
</tr>
<tr>
<td>PLUS the Level II courses as follows: (9 Units)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BUSM 25</td>
<td>Business Communications</td>
<td>3.0</td>
</tr>
<tr>
<td>BUSA 70</td>
<td>Payroll and Tax Accounting</td>
<td>3.0</td>
</tr>
<tr>
<td>CISB 15</td>
<td>Microcomputer Applications</td>
<td>3.0</td>
</tr>
<tr>
<td>Total Units</td>
<td></td>
<td>24.5</td>
</tr>
</tbody>
</table>
### Programs of Study Leading to a Certificate

#### Business: International - Level II
**Business Division Certificate L0597**

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

**Required Courses:**

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

- **Plus Level II as follows: (6 Units)**
  - BUSM 61 Business Organization and Management 3.0
  - BUSM 66 Small Business Management 3.0
  - PLUS Select one (1) course from: (4 Units)
    - CHIN 1 Elementary Chinese 4.0
    - FRCH 1 Elementary French 4.0
    - GERM 1 Elementary German 4.0
    - ITAL 1 Elementary Italian 4.0
    - JAPN 1 Elementary Japanese 4.0
    - SPAN 1 Elementary Spanish 4.0

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

- **Total Units 19.0**

**Special Information:**

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

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#### Business: International - Level III
**Business Division Certificate L0528**

Upon completion of the Business: International Level III Certificate, students will have acquired the specific skills needed to successfully complete international business transactions. Students will gain a practical, hands-on perspective of how to compete in a global system of conflicting laws, regulations, and requirements. Completion of the Business: International - Level I and II coursework (19 Units) as follows:

**Required Courses:**

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

- **Level II as follows: (6 Units)**
  - BUSM 61 Business Organization and Management 3.0
  - BUSM 66 Small Business Management 3.0
  - PLUS Select one (1) course from: (4 Units)
    - CHIN 1 Elementary Chinese 4.0
    - FRCH 1 Elementary French 4.0
    - GERM 1 Elementary German 4.0
    - ITAL 1 Elementary Italian 4.0
    - JAPN 1 Elementary Japanese 4.0
    - SPAN 1 Elementary Spanish 4.0

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

- **Total Units 18.5**

**Special Information:**

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

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#### Business: Management - Level II
**Business Division Certificate L0596**

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.

**Required Courses:**

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

- **Total Units 18.5**

**Special Information:**

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

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#### Business: Management - Level III
**Business Division 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.

**Required Courses:**

- **Completion of the Retail Management - Level I coursework as follows: (9.5 Units)**
  - BUSO 25 Business Communications 3.0
  - BUSS 50 Retail Store Management and Merchandising 3.0
  - FASH 62 Retail Buying and Merchandising 3.0
  - C50 15 Microcomputer Applications 3.5

- **Total Units 29.5**

**Special Information:**

Students receiving financial aid need to declare the Level III Certificate as their goal to meet Financial Aid requirements.
<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUSA 11  Business: Retail Management - Level I</td>
<td>3.0</td>
<td>Fundamentals of Accounting</td>
</tr>
<tr>
<td>BUSM 61  and Management</td>
<td>3.0</td>
<td>Business Organization</td>
</tr>
<tr>
<td>BUSM 62  Human Resource Management</td>
<td>3.0</td>
<td></td>
</tr>
<tr>
<td>BUS 36  Principles of Marketing</td>
<td>3.0</td>
<td></td>
</tr>
<tr>
<td><strong>Total Units</strong></td>
<td><strong>32.5</strong></td>
<td></td>
</tr>
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</table>

**Business: Retail Management - Level II**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUSM 61  Business Organization</td>
<td>3.0</td>
<td></td>
</tr>
<tr>
<td>BUSM 60  Human Relations in Business</td>
<td>3.0</td>
<td></td>
</tr>
<tr>
<td>BUSO 26  Oral Communications for Business</td>
<td>3.0</td>
<td></td>
</tr>
<tr>
<td><strong>Total Units</strong></td>
<td><strong>18.0</strong></td>
<td></td>
</tr>
</tbody>
</table>

**Business: Small Business Management - Level II**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUSM 61  Business Organization</td>
<td>3.0</td>
<td></td>
</tr>
<tr>
<td>BUSM 60  Human Relations in Business</td>
<td>3.0</td>
<td></td>
</tr>
<tr>
<td>BUS 36  Principles of Marketing</td>
<td>3.0</td>
<td></td>
</tr>
<tr>
<td><strong>Total Units</strong></td>
<td><strong>18.0</strong></td>
<td></td>
</tr>
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</table>

**Business: Small Business Management - Level III**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUSM 61  Business Organization</td>
<td>3.0</td>
<td></td>
</tr>
<tr>
<td>BUSM 60  Human Relations in Business</td>
<td>3.0</td>
<td></td>
</tr>
<tr>
<td>BUS 36  Principles of Marketing</td>
<td>3.0</td>
<td></td>
</tr>
<tr>
<td><strong>Total Units</strong></td>
<td><strong>18.0</strong></td>
<td></td>
</tr>
</tbody>
</table>

**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:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHLD 1  Child, Family, School and Community</td>
<td>3.0</td>
<td></td>
</tr>
<tr>
<td>CHLD 5  Principles and Practices</td>
<td>3.0</td>
<td>in Child Development Programs</td>
</tr>
<tr>
<td>CHLD 6  Survey of Child Development</td>
<td>3.0</td>
<td>Curriculum</td>
</tr>
<tr>
<td>CHLD 10  Child Growth and Lifespan Development</td>
<td>3.0</td>
<td>or</td>
</tr>
<tr>
<td>CHLD 10H  Child Growth and Lifespan Development - Honors</td>
<td>3.0</td>
<td>or</td>
</tr>
<tr>
<td>CHLD 64  Health, Safety and Nutrition of Young Children</td>
<td>3.0</td>
<td>or</td>
</tr>
<tr>
<td>CHLD 68  Children With Special Needs</td>
<td>3.0</td>
<td>or</td>
</tr>
<tr>
<td>CHLD 84  Guidance and Discipline</td>
<td>1.0</td>
<td>in Child Development Settings</td>
</tr>
<tr>
<td><strong>PLUS Select three (3) courses from:</strong></td>
<td><strong>9 Units</strong></td>
<td></td>
</tr>
<tr>
<td>CHLD 61  Language Arts and Art Media for Young Children</td>
<td>3.0</td>
<td>for Young Children</td>
</tr>
<tr>
<td>CHLD 62  Music and Motor Development for Young Children</td>
<td>3.0</td>
<td>for Young Children</td>
</tr>
<tr>
<td>CHLD 63  Creative Sciences and Math for Young Children</td>
<td>3.0</td>
<td>for Young Children</td>
</tr>
<tr>
<td>CHLD 73  Infant/Toddler Care and Development</td>
<td>3.0</td>
<td>or</td>
</tr>
<tr>
<td><strong>PLUS Additional required courses:</strong></td>
<td><strong>11 Units</strong></td>
<td></td>
</tr>
<tr>
<td>CHLD 50  Teaching in a Diverse Society</td>
<td>3.0</td>
<td>or</td>
</tr>
<tr>
<td>CHLD 71A  Administration of Child Development Programs</td>
<td>3.0</td>
<td>or</td>
</tr>
<tr>
<td>CHLD 71B  Management/Marketing/Personnel for ECD Programs</td>
<td>3.0</td>
<td>or</td>
</tr>
</tbody>
</table>
### Children's Program Certificate:  
**General - Level II**

#### Business Division  
**Certificate L1328**  
The Children's Program Certificate: General Level II  

This certificate focuses on safe and healthy environments, working appropriately with children with special needs, and child relationships. With 175 days of experience and the completion of the first specific G.E. Units in Areas A, B, C, and D, this certificate meets the Title 5 education requirements for a fully qualified teacher.

#### Required Courses:  
**Completion of Children's Program Certificate: General - Level I and Level II coursework**  

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHLD 1</td>
<td>Child, Family, School and Community</td>
<td>3.0</td>
</tr>
<tr>
<td>CHLD 5</td>
<td>Principles and Practices in Child Development Programs</td>
<td>3.0</td>
</tr>
<tr>
<td>CHLD 6</td>
<td>Survey of Child Development</td>
<td>3.0</td>
</tr>
<tr>
<td>CHLD 11</td>
<td>Child and Adolescent Development</td>
<td>3.0</td>
</tr>
<tr>
<td>CHLD 64</td>
<td>Health, Safety and Nutrition of 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 and Discipline</td>
<td>1.0</td>
</tr>
</tbody>
</table>

PLUS Select three (3) Level III courses from:  

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>CHLD 50</td>
<td>Teaching in a Diverse Society</td>
<td>3.0</td>
</tr>
<tr>
<td>CHLD 61</td>
<td>Language Arts and Art Media for Young Children</td>
<td>3.0</td>
</tr>
<tr>
<td>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**: 19.0

### Children's Program Certificate:  
**Teaching**

#### Business Division  
**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 contains two laboratory and one fieldwork component emphasizing working with children. This certificate exceeds Title 5 education requirements for fully qualified teachers. With 175 days of experience and the completion of 16 specific G.E. Areas A, B, C, and D, this certificate meets Title 5 education requirements for a fully qualified teacher.

#### Required Courses:  
**Completion of Children's Program Certificate: General - Level I and Level II coursework**  

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHLD 1</td>
<td>Child, Family, School and Community</td>
<td>3.0</td>
</tr>
<tr>
<td>CHLD 5</td>
<td>Principles and Practices in Child Development Programs</td>
<td>3.0</td>
</tr>
<tr>
<td>CHLD 6</td>
<td>Survey of Child Development</td>
<td>3.0</td>
</tr>
<tr>
<td>CHLD 11</td>
<td>Child and Adolescent Development</td>
<td>3.0</td>
</tr>
<tr>
<td>CHLD 64</td>
<td>Health, Safety and Nutrition of 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 and Discipline</td>
<td>1.0</td>
</tr>
</tbody>
</table>

PLUS Select two (2) courses from:  

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHLD 75</td>
<td>Supervising Adults in Early Childhood Settings</td>
<td>2.0</td>
</tr>
<tr>
<td>CHLD 84</td>
<td>Guidance and Discipline</td>
<td>1.0</td>
</tr>
<tr>
<td>CHLD 91</td>
<td>Early Childhood Development Field Work</td>
<td>1.0</td>
</tr>
</tbody>
</table>

**Total Units**: 28.0

### Computer and Networking Technology - Level I  
**Certificate L0795**  
The Computer and Networking Technology Level I and II certificate programs prepare students to become computer and networking service technicians. Courses required for the Level I certificate provide foundations in basic electricity and electronics, operating systems, computer service and troubleshooting, and preparation for the A+ certification examination sponsored by CompTIA and offered at testing centers throughout the country. Level I certificate students learn to install, configure, maintain, troubleshoot, and repair computers and networks. With further preparation leading to the Level II certificate, students will ready themselves for the CompTIA Network+, Server+, and Security+ certification tests. These industry certifications are recognized worldwide as benchmarks for the computer and networking technician. Further, students will have requisite skills upon which to seek additional I.T. certifications available for the computer and networking fields.

#### Required Courses:  

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CNET 50</td>
<td>PC Servicing</td>
<td>4.0</td>
</tr>
<tr>
<td>CNET 52</td>
<td>PC Operating Systems</td>
<td>4.0</td>
</tr>
<tr>
<td>CNET 54</td>
<td>PC Troubleshooting</td>
<td>4.0</td>
</tr>
<tr>
<td>CNET 60</td>
<td>A+ Certification Preparation</td>
<td>2.0</td>
</tr>
<tr>
<td>ELEC 11</td>
<td>Technical Applications</td>
<td>3.0</td>
</tr>
</tbody>
</table>

or  

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CISB 15</td>
<td>Microcomputer Applications</td>
<td>3.5</td>
</tr>
<tr>
<td>ELEC 50A</td>
<td>Electronic Circuits - Direct Current (DC)</td>
<td>4.0</td>
</tr>
<tr>
<td>ELEC 50B</td>
<td>Electronic Circuits (AC)</td>
<td>4.0</td>
</tr>
<tr>
<td>ELEC 56</td>
<td>Digital Electronics</td>
<td>4.0</td>
</tr>
</tbody>
</table>

**Total Units**: 29.0 - 29.5
Computer and Networking Technology - Level II

Technology and Health Division
Certificate T0726

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

Required Courses:
Completion of the Computer and Networking Technology - Level I coursework as follows:
(29.0-29.5 Units)
CNET 50  PC Servicing 4.0
CNET 52  PC Operating Systems 4.0
CNET 54  PC Troubleshooting 4.0
CNET 60  A+ Certification Preparation 2.0
ELEC 11  Technical Applications in Microprocessors 3.0
or
CISB 15  Microcomputer Applications 3.5
ELEC 50A  Electronic Circuits - Direct Current (DC) 4.0
ELEC 50B  Electronic Circuits (AC) 4.0
ELEC 56  Digital Electronics 4.0

Plus the Level II courses as follows: (12 Units)
CNET 56  Computer Networks 4.0
CNET 62  Network+ Certification Preparation 2.0
CNET 64  Server+ Certification Preparation 2.0
CNET 66  Security+ Certification Preparation 2.0

Computer Systems Technology

Technology and Health Division
Certificate L0924

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.

Construction Inspection

Technology and Health Division
Certificate L0920

Dance Teacher

Kinesiology and Athletics Division
Certificate L0355

Electronic Systems Technology
- Level II

Technology and Health Division
Certificate L0928

Recommended Electives:

Programs of Study Leading to a Certificate

Required Courses:

Recommended Electives:

Total Units 23.0

Total Units 18.5

Total Units 29.0 - 29.5

Kinesiology and Athletics Division
Certificate L0355

Dance Teacher

Kinesiology and Athletics Division
Certificate L0355

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

Required Courses:

Recommended Electives:

Total Units 29.0 - 29.5

Recommended Electives:

Total Units 18.5

Recommended Electives:

Total Units 29.0 - 29.5

Electronic Systems Technology
- Level II

Technology and Health Division
Certificate L0928

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

Recommended Electives:

Recommended Electives:

Total Units 18.5

Recommended Electives:

Total Units 29.0 - 29.5

Recommended Electives:
### Electronics and Computer Engineering Technology

#### Technology and Health Division

**Certificate T0906**

The Electronics and Computer Engineering Technology (ECET) certificate program prepares individuals either for initial employment or for enhancement of existing skills in the electronics field, or for transfer into B.S. programs in Electronics Technology or Industrial Technology offered in the CSU system. Required courses for the certificate — many of which articulate directly to their equivalents at the CSUs — are the same as for the ECET A.S. degree program except for the college General Education requirement. In addition to exposing students to core topics such as components and circuits, the program includes coursework in advanced areas, including microcontrollers and interfacing, communications, and industrial electronics. Nearly all laboratories have new, state-of-the-art equipment to provide students with quality, hands-on learning experiences.

Students completing the ECET certificate program possess ample skills to make them versatile employees. Typical technician-level job classifications include field service technician, field engineer, computer service technician, customer service technician, communications technician, maintenance technician, and electronics technician. All students completing the certificate program are automatically eligible to receive, without further examination, a 3rd Class Technician License from the National Association of Radio and Telecommunications Engineers (N.A.R.T.E.), while students completing certificate programs are automatically eligible for the N.A.R.T.E. 4th Class Technician license.

#### Required Courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELEC 11</td>
<td>Technical Applications in Microcomputers</td>
<td>3.0</td>
</tr>
<tr>
<td>ELEC 12</td>
<td>Computer Simulation and Troubleshooting</td>
<td>2.0</td>
</tr>
<tr>
<td>ELEC 50A</td>
<td>Electronic Circuits - Direct Current (DC)</td>
<td>4.0</td>
</tr>
<tr>
<td>ELEC 50B</td>
<td>Electronic Circuits (AC)</td>
<td>4.0</td>
</tr>
<tr>
<td>ELEC 51</td>
<td>Semiconductor Devices and Circuits</td>
<td>4.0</td>
</tr>
<tr>
<td>ELEC 53</td>
<td>Communication Systems</td>
<td>4.0</td>
</tr>
<tr>
<td>ELEC 54A</td>
<td>Industrial Electronics</td>
<td>4.0</td>
</tr>
<tr>
<td>ELEC 54B</td>
<td>Industrial Electronic Systems</td>
<td>4.0</td>
</tr>
</tbody>
</table>

#### Recommended Electives:

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

### Electronics Communications

#### Technology and Health Division

**Certificate T0904**

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

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

#### Required Courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELEC 11</td>
<td>Technical Applications in Microcomputers</td>
<td>3.0</td>
</tr>
<tr>
<td>ELEC 12</td>
<td>Computer Simulation and Troubleshooting</td>
<td>2.0</td>
</tr>
<tr>
<td>ELEC 50A</td>
<td>Electronic Circuits - Direct Current (DC)</td>
<td>4.0</td>
</tr>
<tr>
<td>ELEC 50B</td>
<td>Electronic Circuits (AC)</td>
<td>4.0</td>
</tr>
<tr>
<td>ELEC 51</td>
<td>Semiconductor Devices and Circuits</td>
<td>4.0</td>
</tr>
<tr>
<td>ELEC 53</td>
<td>Communication Systems</td>
<td>4.0</td>
</tr>
<tr>
<td>ELEC 54A</td>
<td>Industrial Electronics</td>
<td>4.0</td>
</tr>
<tr>
<td>ELEC 54B</td>
<td>Industrial Electronic Systems</td>
<td>4.0</td>
</tr>
</tbody>
</table>

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

#### Technology and Health Division

**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.

This Paramedic Program complies with the federal Department of Transportation (DOT) for individuals seeking a paramedic license. The American Medical Technologists (AMT) and the American Registry of Emergency Medical Technicians (AREMT) both accept this program as meeting the standards for paramedics.

#### Required Courses:

- ELEC 11 Technical Applications in Microcomputers 3.0
- ELEC 12 Computer Simulation and Troubleshooting 2.0
- ELEC 50A Electronic Circuits - Direct Current (DC) 4.0
- ELEC 50B Electronic Circuits (AC) 4.0
- ELEC 51 Semiconductor Devices and Circuits 4.0
- ELEC 53 Communication Systems 4.0
- ELEC 54A Industrial Electronics 4.0
- ELEC 54B Industrial Electronic Systems 3.0
- ELEC 55 Microwave Communications 4.0
- ELEC 56 Digital Electronics 4.0
- ELEC 61 Electronic Assembly and Fabrication 3.0
- ELEC 62 Advanced Surface Mount Assembly and Rework 2.0
- PHYS 2AG General Physics 4.0

#### Total Units

- ELEC 55 Microwave Communications 4.0
- ELEC 56 Digital Electronics 4.0
- ELEC 51 Semiconductor Devices and Circuits 4.0
- ELEC 53 Communication Systems 4.0
- ELEC 55 Microwave Communications 4.0
- ELEC 56 Digital Electronics 4.0
- ELEC 61 Electronic Assembly and Fabrication 3.0
- TECH 60 Customer Relations for the Technician 2.0

**Total Units:** 45.0
and then eight (8) weeks of Field Externship as a practicing Paramedic under the guidance and supervision of a Paramedic Field Preceptor.

**Required Courses:**
- EMS 10 Anatomy and Physiology 2.0 for Paramedics
- EMS 20 Emergency Cardiac Care 1.5 for Paramedics
- EMS 30 Pharmacology for Paramedics 2.5
- EMS 40 Cardiology for Paramedics 5.0
- EMS 50 Paramedic Skills Competency 5.0
- EMS 60 EMS Theory for Paramedics 8.5
- EMS 70 Paramedic Clinical Internship 4.0
- EMS 80 Paramedic Field Externship 9.5

**Total Units** 38.0

**Recommended Electives:**
- ADJU 1 The Administration of Justice System 3.0
- FIRE 1 Fire Protection Organization 3.0
- PSYC 1A Introduction to Psychology 3.0 or PSYC 1AH Introduction to Psychology - Honors 3.0
- SOC 1 Sociology 3.0 or SOC 1H Sociology - Honors 3.0

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

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

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

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

1. Be an EMT-I, currently certified in California.
2. Submit a letter on official stationery from a recognized EMS agency verifying completion of six (6) months of pre-hospital field experience as an EMT-I (approximately 1,200 hours) within the last 2 years.
3. File a College application and be accepted as a student at Mt. San Antonio College.
4. Submit an application for the Paramedic Program to the Health Science Programs Office (909) 274-7500, Ext. 4750. All applications are dated upon receipt in the Health Science Programs Office. The Paramedic Program begins three (3) times per year, in August, January and May and runs for 29 weeks.
5. Take the Assessment of Written English, the Math Placement Test and Degrees of Reading Power test at least 10 working days before the start of the pre-courses EMS 1 and EMS 2. Placement examinations will be individually assessed to determine eligibility for the pre-courses. The placement tests are administered by the Assessment Center, located in the Student Services Center.
6. Successful completion of EMS 1, Paramedic Fundamentals and Selection and EMS 2, Preparation for Paramedic Program.

7. Forward two (2) official transcripts of all coursework completed (high school, EMT - I, Fire Science and college work other than Mt. San Antonio College courses). One transcript must be sent to the Health Science Programs Office; the other to the Admissions and Records Office. For students who possess a college degree, the English placement examination is not required. However, it will be necessary for students to obtain two (2) official copies of the college transcript showing the degree issued. One official transcript must be sent to the Health Science Programs Office; the other to the Admissions and Records Office.

NOTE: If the course(s) were taken and/or 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 its agents.

**ALL APPLICANTS ARE EXPECTED TO MEET THE ESSENTIAL FUNCTIONS FOR SUCCESS IN THE PARAMEDIC PROGRAM.**

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

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

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

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

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**Section 7**
Programs of Study Leading to a Certificate

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

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

Total Units 18.0

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

Required Courses:
- FASH 8 Introduction to Fashion 3.0
- FASH 17 Textiles 3.0
- FASH 25 Fashion Computer-Assisted Drawing 3.0
- FASH 59 Fashion Retailing 3.0
- FASH 62 Retail Buying and Merchandising 3.0
- FASH 63 Fashion Promotion 3.0

Total Units 18.0

Fashion Merchandising - Level II
Business Division
Certificate L1303
The Fashion Merchandising Level II Certificate is designated to build upon the Fashion Merchandising Level I Certificate to provide students with proven business and management tools that will increase their practical understanding of merchandising and marketing. Students will be exposed to projects and visual display simulations that will enhance their merchandising and management career potential.

Required Courses:
- FASH 8 Introduction to Fashion 3.0
- FASH 17 Textiles 3.0
- FASH 25 Fashion Computer-Assisted Drawing 3.0
- FASH 62 Retail Buying and Merchandising 3.0
- FASH 63 Fashion Promotion 3.0

Total Units 24.0

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

Required Courses:
- FIRE 5 Fire Behavior and Combustion 3.0
- FIRE 13 Principles of Fire and Emergency Services Safety and Survival 3.0

Recommended Electives:
- FIRE 6 Hazardous Materials/ICS 3.0
- FIRE 7 Fire Fighting Tactics and Strategy 3.0
- FIRE 8 Fire Company Organization and Management 3.0
- FIRE 9 Fire Hydraulics 3.0
- FIRE 10 Arson and Fire Investigation 3.0
- FIRE 11 Fire Apparatus and Equipment 3.0
- FIRE 12 Wildland Fire Control 4.5
- FIRE 86 Basic Fire Academy 14.5

Total Units 23.5 - 37.0

Graphic Design Level II
Arts Division
Certificate T0369
This multi-level certificate program is designed to prepare students for careers in the Graphic Design field of Communication Art. Students are given a balanced blend of creative, design, and technology skills necessary to develop successful graphic design for print, web, and other media channels. This Graphic Design Level II certificate offers additional expertise necessary for employment opportunities in the field of Graphic Design. The production software reflects industry standards and course content is driven by industry needs.

Required Courses:
- ARTC 200 Web Design 3.0
- ARTD 20 Design: Two-Dimensional 3.0

Total Units 18.0
**Horticulture Science**

**Natural Sciences Division**

**Certificate L0394**

This certificate is designed to give students basic knowledge and skills pertaining to horticulture science.

**Required Courses:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AGOR 1</td>
<td>Horticultural Science</td>
<td>3.0</td>
</tr>
<tr>
<td>AGOR 24</td>
<td>Integrated Pest Management</td>
<td>3.0</td>
</tr>
<tr>
<td>AGOR 29</td>
<td>Ornamental Plants - Herbaceous</td>
<td>3.0</td>
</tr>
<tr>
<td>AGOR 30</td>
<td>Ornamental Plants - Trees and Woody Shrubs</td>
<td>3.0</td>
</tr>
<tr>
<td>AGOR 39</td>
<td>Turf Grass Production and Management</td>
<td>3.0</td>
</tr>
<tr>
<td>AGOR 50</td>
<td>Soil Science and Management</td>
<td>3.0</td>
</tr>
</tbody>
</table>

**Total Units** 18.0

**Hospitality: Hospitality Management - Level II**

**Business Division**

**Certificate L1325**

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

**Required Courses:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>HRM 51</td>
<td>Introduction to Hospitality</td>
<td>3.0</td>
</tr>
<tr>
<td>HRM 53</td>
<td>Dining Room Service Management</td>
<td>3.0</td>
</tr>
<tr>
<td>HRM 56</td>
<td>Hospitality Supervision</td>
<td>3.0</td>
</tr>
<tr>
<td>HRM 64</td>
<td>Hospitality Financial Accounting</td>
<td>3.0</td>
</tr>
<tr>
<td>HRM 66</td>
<td>Hospitality Law</td>
<td>3.0</td>
</tr>
<tr>
<td>HRM 70</td>
<td>Introduction to Lodging</td>
<td>3.0</td>
</tr>
<tr>
<td>HRM 91</td>
<td>Hospitality Work Experience</td>
<td>1.0</td>
</tr>
</tbody>
</table>

**Total Units** 19.0

**Industrial Design Engineering - Level I**

**Technology and Health Division**

**Certificate L0327**

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

**Required Courses:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>IDE 110</td>
<td>Design Foundation-Visual Literacy</td>
<td>3.0</td>
</tr>
<tr>
<td>IDE 120</td>
<td>Introduction to CAD</td>
<td>3.0</td>
</tr>
<tr>
<td>IDE 130</td>
<td>Shop Processes</td>
<td>3.0</td>
</tr>
<tr>
<td>IDE 150</td>
<td>Design Foundations</td>
<td>3.0</td>
</tr>
<tr>
<td>IDE 160</td>
<td>Intermediate CAD</td>
<td>3.0</td>
</tr>
<tr>
<td>IDE 170</td>
<td>Introduction to Prototyping</td>
<td>3.0</td>
</tr>
</tbody>
</table>

**Total Units** 18.0

**Recommended Electives:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELEC 50A</td>
<td>Electronic Circuits - Direct Current (DC)</td>
<td>4.0</td>
</tr>
<tr>
<td>ELEC 81</td>
<td>Laboratory Studies in Electronics</td>
<td>1.0</td>
</tr>
<tr>
<td>MATH 51</td>
<td>Elementary Algebra</td>
<td>4.0</td>
</tr>
<tr>
<td>PHYS 1</td>
<td>Physics</td>
<td>4.0</td>
</tr>
<tr>
<td>WELD 30</td>
<td>Metal Sculpture</td>
<td>2.0</td>
</tr>
<tr>
<td>WELD 40</td>
<td>Introduction to Welding</td>
<td>2.0</td>
</tr>
</tbody>
</table>

**Industrial Design Engineering - Level II**

**Technology and Health Division**

**Certificate L0329**

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

**Required Courses:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>IDE 110</td>
<td>Design Foundation-Visual Literacy</td>
<td>3.0</td>
</tr>
<tr>
<td>IDE 120</td>
<td>Introduction to CAD</td>
<td>3.0</td>
</tr>
<tr>
<td>IDE 130</td>
<td>Shop Processes</td>
<td>3.0</td>
</tr>
</tbody>
</table>

**Total Units** 18.0

**Industrial Design Engineering - Level III**

**Technology and Health Division**

**Certificate T0328**

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

**Required Courses:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>IDE 110</td>
<td>Design Foundation-Visual Literacy</td>
<td>3.0</td>
</tr>
<tr>
<td>IDE 120</td>
<td>Introduction to CAD</td>
<td>3.0</td>
</tr>
<tr>
<td>IDE 130</td>
<td>Shop Processes</td>
<td>3.0</td>
</tr>
<tr>
<td>IDE 150</td>
<td>Design Foundations</td>
<td>3.0</td>
</tr>
<tr>
<td>IDE 160</td>
<td>Intermediate CAD</td>
<td>3.0</td>
</tr>
<tr>
<td>IDE 170</td>
<td>Introduction to Prototyping</td>
<td>3.0</td>
</tr>
<tr>
<td>IDE 210</td>
<td>Advanced Media</td>
<td>3.0</td>
</tr>
<tr>
<td>IDE 220</td>
<td>Advanced CAD</td>
<td>3.0</td>
</tr>
<tr>
<td>IDE 230</td>
<td>Introduction to Mechanical Principles</td>
<td>3.0</td>
</tr>
</tbody>
</table>
### 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>IDE 250</td>
<td>Product Design and Viability</td>
<td>6.0</td>
</tr>
<tr>
<td>IDE 270</td>
<td>Manufacturing Processes and Materials</td>
<td>3.0</td>
</tr>
<tr>
<td></td>
<td><strong>Total Units</strong></td>
<td><strong>36.0</strong></td>
</tr>
</tbody>
</table>

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

#### Infant/Toddler Development

**Business Division Certificate T1318**

The Infant/Toddler Development provides specialized skills and knowledge for working with infants and toddlers. This certificate exceeds Title 22 requirements for a fully qualified teacher of infants/toddlers by including the specified 3 Units related to infant care. With 350 days of experience, the completion of 16 specified G.E. Units in Areas A, B, C, and D and 2 adult supervision Units; this certificate meets Title 5 education requirements for the Master Teacher Level Permit. This permit authorizes the holder to provide service in the care, development, and instruction of children and serve as a coordinator of curriculum and staff development.

**Required Courses:**
- CHLD 1: Child, Family, School and Community Unity 3.0
- CHLD 5: Principles and Practices 3.0 in Child Development Programs
- CHLD 6: Survey of Child Development Curriculum 3.0
- CHLD 11: Child and Adolescent Development 3.0
- CHLD 73: Infant/Toddler Care and Development 3.0
- CHLD 85: Infant At Risk 3.0

**PLUS Select four (4) courses from: (12 Units)**
- CHLD 50: Teaching in a Diverse Society 3.0
- CHLD 61: Language Arts and Art Media for Young Children 3.0
- CHLD 62: Music and Motor Development for Young Children 3.0
- CHLD 64: Health, Safety and Nutrition of Young Children 3.0

**Total Units:** 30.0

### Interior Design Kitchen and Bath Specialization

**Business Division Certificate T0306**

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

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

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

- **Completion of the Interior Design: Level III coursework:** (17 Units)
  - ID 31: Building Systems for Interior Design 3.0

**PLUS completion of required courses for Kitchen and Bath Specialization:** (9 Units)

- ID 40: Kitchen and Bath Studio I 3.0
- ID 41: Kitchen and Bath Studio II 3.0
- ID 48: Internship in Kitchen and Bath 1.0

**Total Units:** 59.0

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

### Interior Design: Level III

**Business Division Certificate T0304**

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

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

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

- **Completion of the Interior Design: Level III coursework:** (17 Units)
  - ID 31: Building Systems for Interior Design 3.0

**PLUS completion of Level II coursework as follows:** (24 Units)

- ID 20: Color and Design Theory I 3.0
- ID 21: Color and Design Theory II 3.0
- ID 23: Computer Aided Drawing for Interior Design 3.0
- ID 25: Space Planning for Interior Design I 3.0
- ID 26: Space Planning for Interior Design II 3.0
- ID 27: Rapid Visualization 3.0
- ID 29: Interior Design Studio I 3.0

**Total Units:** 33.0

#### Recommended Electives:
- ID 50: Interior Design Specialized Studio 3.0
- ID 52: Independent Studies in Interior Design 1.0
Landscape and Park Maintenance
Natural Sciences Division
Certificate L0353
This certificate program is designed to give students basic skills in the maintenance and landscape of parks. All courses are applicable for degree requirements in Ornamental Horticulture, Parks and Sports Turf Management, and Integrated Pest Management.

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

Total Units 18.0

Law Enforcement Technology and Health Division
Certificate T2102
This program is intended to prepare students for employment following graduation. Students desiring a Bachelor’s Degree (transfer program) should consult with a counselor or advisor to discuss transferability of courses.

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

PLUS Select four (4) courses from: (12 Units)

- ADJU 6 Concepts of Enforcement Services 3.0
- ADJU 13 Concepts of Traffic Services 3.0
- ADJU 20 Principles of Investigation 3.0
- ADJU 38 Narcotics Investigation 3.0
- ADJU 59 Gangs and Corrections 3.0
- ADJU 74 Vice Control 3.0

Total Units 30.0

Recommended Electives:
- KINF 51 Agility Testing Preparation for Administration of Justice and Fire Technology 1.0
- KINF 52 Fitness and Conditioning for Administration of Justice, Fire Technology, and Forestry 1.0
Manufacturing Technology
- Psychiatric Technician

Technology and Health Division
Certificate T0918

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

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

Total Units 21.5

Marketing Management

Business Division
Certificate L0510

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

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

Total Units 21.5

Mental Health Technology

- Psychiatric Technician

Technology and Health Division
Certificate T1279

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

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

Total Units 52.0

Special Information:

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

Entrance Requirements:

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

a) Be a high school graduate or equivalent. (All students who have taken coursework outside of the United States must have their transcript evaluated. Foreign transcripts will not be accepted without the evaluation.)
b) Be 18 years of age.
c) File a college application and be accepted as a student at Mt. San Antonio College.
d) Submit an application for the Mental Health/Psychiatric Technician Program to the Technology and Health Division Office (909) 274-7500, ext. 4750. All applications are dated upon receipt in the Technology and Health Division Office. A program begins each fall and spring semester.
e) Take the required English Placement Test (AWE). Eligibility for ENGL 68 is advised. If you have already taken a college placement exam within the past two years at another school, arrange to have your test scores forwarded to the Technology and Health Division Office. (If you were tested at Mt. San Antonio College, the office will obtain the test scores as long as an “Application for Admission” is on file with the Admissions and Records Office.) Testing is administered by the Assessment Center, located in the Student Services Center. Arrangements should be made with them to schedule a day and time to take the English Placement Test, if required. The Assessment Center is open Monday through Friday. You may contact them at (909) 274-7500, ext. 4265.
f) Forward two official transcripts of all coursework completed (high school, nursing school, and other than Mt. San Antonio college courses.) One transcript must be sent to the Technology and Health Division Office and the other to the Admissions and Records Office.
g) For students who possess a college degree, the English Placement Test is not required. However, it will be necessary for a student to obtain two official copies of the college transcript showing the degree issued. One transcript must be sent to the Technology and Health Division Office and the other to the Admissions and Records Office.
h) You may contact them at (909) 274-7500, ext. 4265.

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 heaving effort (lift and carry at least 125 pounds)
- Perform considerable reaching, stooping, bending, kneeling and crouching

Indicate in the mailing address the program for which your transcript is being sent to the Technology and Health Division Office.

EXAMPLE:

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

h) A physical examination, including specific immunizations, and consent/disclaimer for Hepatitis A/B vaccine is required of all candidates prior to beginning classes. Students must provide proof that he/she does not have tuberculosis. These requirements are in accordance with the healthcare agency policy that insure that students are in good health and free from communicable disease and able to perform their training functions. Drug testing may also be required as part of this physical examination. Proof of high school graduation and malpractice insurance are required of all candidates upon acceptance.

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

j) All students will be required to pass a background check prior to entering the clinical education phase.
Sensory Demands:
- Color vision: ability to distinguish and identify colors (may be corrected with adaptive device)
- Distance vision: ability to see clearly 20 feet or more
- Depth perception: ability to judge distance and space relationships
- Near vision: ability to see clearly 20 inches or less
- Hearing: able to recognize a full range of tones

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

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

Nursery Management
Natural Sciences Division
Certificate L0107
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.

Required Courses:
AGOR 1 Horticultural Science 3.0
AGOR 2 Plant Propagation/Greenhouse Management 3.0
AGOR 29 Ornamental Plants - Herbaceous Management 3.0
AGOR 32 Landscaping and Nursery Management 3.0
AGOR 50 Soil Science and Management 3.0
AGOR 64 Landscape Irrigation 3.0

Total Units 18.0

Photography - Level I
Arts Division
Certificate L0348
This multi-level certificate program is designed to prepare students for employment in the field of photography. The Photography Level I offers the core skills necessary for employment as an entry-level Photography Assistant.

Required Courses:
ARTC 100 Graphic Design I 3.0
PHOT 9 Digital Image Editing for Photographers 3.0
PHOT 10 Basic Digital and Film Photography 3.0
PHOT 11 Intermediate Photography 4.0
PHOT 14 Commercial Lighting 3.0
PHOT 12 Photographic Alternatives 3.0
PHOT 16 Fashion Photography 3.0
PHOT 18 Portraiture and Wedding Photography 3.0
PHOT 20 Color Photography 3.0

Totals Units 19.0

Photography - Level II
Arts Division
Certificate T0349
This multi-level certificate program is designed to prepare students for entry level positions in park management. Emphasis is placed on positions that are at the city and county level. All courses are applicable for degree requirements.

Required Courses:
ARTC 100 Portfolio 3.0
PHOT 10 Basic Digital and Film Photography 3.0
PHOT 11 Intermediate Photography 4.0
PHOT 14 Commercial Lighting 3.0
PHOT 12 Photographic Alternatives 3.0
PHOT 18 Portraiture and Wedding Photography 3.0
PHOT 20 Color Photography 3.0

Totals Units 19.0

Recommended Electives:
AHIS 1 Understanding the Visual Arts 3.0
ARTB 1 Understanding the Visual Arts 3.0
PHOT 15 History of Photography 3.0
Programs of Study Leading to a Certificate

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

Required Courses:
- ARTC 100 Graphic Design I 3.0
- PHOT 9 Digital Image Editing 3.0
- PHOT 10 Basic Digital and Film Photography 3.0
- PHOT 11 Intermediate Photography 4.0
- PHOT 14 Commercial Lighting 3.0
- PHOT 19 Digital Color Management 3.0
- PHOT 20 Color Photography 3.0
- PHOT 24 Advanced Digital Image Editing 3.0

Total Units 22.0

Recommended Elective:
- PHOT 29 Studio Business Practices 3.0

Required Courses:
- CISP 31 Programming in C++ 3.0
- CISP 31L Programming in C++ Laboratory 0.5
- CISP 34 Advanced C++ Programming 3.0
- CISP 34L Advanced C++ Programming Laboratory 0.5

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

Required Courses:
- Offered at Citrus College
- PUB 150 Public Works I 3.0
- PUB 158 Municipal and Urban Tree Care 3.0

- Offered at Mt. San Antonio College:
- AGOR 1 Horticultural Science 3.0
- AGOR 39 Turf Grass Production and Management 3.0

Total Units 12.0

Radio Broadcasting: On-the-Air
Arts Division
Certificate L0350
The Radio Broadcasting On-air Certificate of Achievement provides hands-on experience in the broadcasting industry through an off-campus internship at a radio station, production studio or other broadcasting facility.

Required Courses:
- R-TV 01 Introduction to Electronic Media 3.0
- R-TV 10 Radio Programming and Producer Techniques 3.0
- R-TV 11A Beginning Radio Production 3.0
- R-TV 11B Advanced Radio Production 3.0
- R-TV 15 Broadcast Law and Business Practices 3.0
- R-TV 96A Campus Radio Station Lab: Studio Procedures and Equipment Operations 1.0
- R-TV 96B Campus Radio Station Lab: Disc Jockey & News Anchor/Reporter Skills 1.0
- R-TV 97A Radio/Entertainment Industry Seminar 1.0
- R-TV 97B Radio/Entertainment Industry Work Experience 1.0
- R-TV 97C Radio/Entertainment Industry 1.0
- R-TV 97D Radio/Entertainment Industry Lab 1.0

Total Units 26.0

Real Estate Broker Certificate
Business Division
Certificate L0352
Prior to taking the California Real Estate Broker's License Exam, the applicant must have completed five (5) required courses: Legal Aspects of Real Estate (BUSR 51), Real Estate Practice (BUSR 52), Real Estate Finance (BUSR 53), Real Estate Appraisal (BUSR 81) and either Real Estate Economics (BUSR 55) or Fundamentals of Accounting (BUSR 11). In addition, the applicant must
### School Age Child - Specialization

**Business Division**

**Certificate T3134**

The School Age Child-Specialization Certificate provides specialized skills and knowledge for working with school age children. This certificate exceeds the Title 22 requirements for a fully qualified teacher in school age programs. This skill set also prepares the student for positions as elementary tutors or classroom aides in public school districts.

**Required Courses:**

<table>
<thead>
<tr>
<th>Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHLD 1</td>
<td>Child, Family, School and CommUnity</td>
<td>3.0</td>
</tr>
<tr>
<td>CHLD 5</td>
<td>Principles and Practices in Child Development Programs</td>
<td>3.0</td>
</tr>
<tr>
<td>CHLD 6</td>
<td>Survey of Child Development Curriculum</td>
<td>3.0</td>
</tr>
<tr>
<td>CHLD 10</td>
<td>Child Growth and Lifespan Development</td>
<td>3.0</td>
</tr>
<tr>
<td>CHLD 10H</td>
<td>Child Growth and Lifespan Development - Honors</td>
<td>3.0</td>
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<tr>
<td>CHLD 11</td>
<td>Child and Adolescent Development</td>
<td>3.0</td>
</tr>
<tr>
<td>CHLD 50</td>
<td>Teaching in a Diverse Society</td>
<td>3.0</td>
</tr>
<tr>
<td>CHLD 51</td>
<td>Early Literacy in Child Development</td>
<td>3.0</td>
</tr>
<tr>
<td>CHLD 62</td>
<td>Music and Motor Development for Young Children</td>
<td>3.0</td>
</tr>
<tr>
<td>CHLD 64</td>
<td>Health, Safety and Nutrition of Children</td>
<td>3.0</td>
</tr>
<tr>
<td>CHLD 74</td>
<td>Program Planning</td>
<td>3.0</td>
</tr>
</tbody>
</table>

**Required Electives:**

- **PLUS select one (1) course:**
  - LERN 49 Math Skills Review                   | 3.0 |
  - MATH 50 Pre-Algebra                         | 3.0 |

**Total Units** 21.0 - 21.5

### Sign Language/Interpreting

**Humanities and Social Sciences Division**

**Certificate T0801**

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

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

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

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

**Required Courses:**

<table>
<thead>
<tr>
<th>Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>SIGN 105</td>
<td>American Sign Language</td>
<td>4.0</td>
</tr>
<tr>
<td>SIGN 108</td>
<td>Fingerspelling</td>
<td>2.0</td>
</tr>
<tr>
<td>SIGN 201</td>
<td>Introduction to Deaf Studies</td>
<td>3.0</td>
</tr>
<tr>
<td>SIGN 202</td>
<td>American Deaf Culture</td>
<td>3.0</td>
</tr>
<tr>
<td>SIGN 210</td>
<td>American Sign Language Structure</td>
<td>3.0</td>
</tr>
<tr>
<td>SIGN 220</td>
<td>Translation: American Sign Language/English</td>
<td>3.0</td>
</tr>
<tr>
<td>SIGN 223</td>
<td>Principles of Interpreting</td>
<td>3.0</td>
</tr>
<tr>
<td>SIGN 225</td>
<td>Ethical Decision Making for Interpreters</td>
<td>2.0</td>
</tr>
</tbody>
</table>

**Total Units** 42.0 - 42.5

### Sports Turf Management

**Natural Sciences Division**

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

**Required Courses:**

<table>
<thead>
<tr>
<th>Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AGOR 24</td>
<td>Integrated Pest Management</td>
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</tr>
<tr>
<td>AGOR 39</td>
<td>Turf Grass Production</td>
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</tr>
<tr>
<td>AGOR 40</td>
<td>Sports Turf Management</td>
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</tr>
<tr>
<td>AGOR 50</td>
<td>Soil Science and Management</td>
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</tr>
<tr>
<td>AGOR 62</td>
<td>Landscape Irrigation</td>
<td>3.0</td>
</tr>
<tr>
<td>AGOR 63</td>
<td>Landscape Irrigation Systems</td>
<td>3.0</td>
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</tbody>
</table>

**Total Units** 18.0

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**Courses Selection:**

- **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 60** Real Estate Investment Planning 3.0
- **BUSR 62** Mortgage Loan Brokering and Lending 3.0
- **BUSR 76** Escrow Procedures 1 3.0
- **PLGL 40** Landlord-Tenant Law 4.0
- **BUSL 18** Business Law 3.0
- **BUSL 18H** Business Law - Honors 3.0
- **BUSL 50** Real Estate Principles 3.0
- **BUSL 57** Income Tax Aspects of Real Estate Investments 3.0
- **BUSL 59** Real Estate Property Management 3.0
- **BUSL 60** Real Estate Investment Planning 3.0
- **BUSL 62** Mortgage Loan Brokering and Lending 3.0
- **BUSL 76** Escrow Procedures 1 3.0
- **PLGL 40** Landlord-Tenant Law 3.0

**Additional Requirements:**

- **AND any of the following courses if NOT taken above:**
  - **BUSL 18** Business Law 3.0
  - **BUSL 18H** Business Law - Honors 3.0
  - **BUSL 50** Real Estate Principles 3.0
  - **BUSL 57** Income Tax Aspects of Real Estate Investments 3.0
  - **BUSL 59** Real Estate Property Management 3.0
  - **BUSL 60** Real Estate Investment Planning 3.0
  - **BUSL 62** Mortgage Loan Brokering and Lending 3.0
  - **BUSL 76** Escrow Procedures 1 3.0
  - **PLGL 40** Landlord-Tenant Law 3.0
  - **BUSL 18** Business Law 3.0
  - **BUSL 18H** Business Law - Honors 3.0
  - **BUSL 50** Real Estate Principles 3.0
  - **BUSL 57** Income Tax Aspects of Real Estate Investments 3.0
  - **BUSL 59** Real Estate Property Management 3.0
  - **BUSL 60** Real Estate Investment Planning 3.0
  - **BUSL 62** Mortgage Loan Brokering and Lending 3.0
  - **BUSL 76** Escrow Procedures 1 3.0
  - **PLGL 40** Landlord-Tenant Law 3.0

**Total Units** 21.0 - 21.5
# Programs of Study Leading to a Certificate

## Television Crew

**Arts Division**

**Certificate L0618**

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

**Required Courses:**

- ANIM 172 Motion Graphics, Compositing and Visual Effects 3.0
- ARTC 100 Graphic Design I 3.0
- ARTC 120 Graphic Design II 3.0
- ARTC 160 Typography 3.0
- ARTC 200 Web Design 3.0
- ARTC 220 Graphic Design IV 3.0
- ARTD 20 Design: Two-Dimensional 3.0

Total Units 21.0

## Tree Care and Maintenance

**Natural Sciences Division**

**Certificate L0111**

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

**Required Courses:**

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

Total Units 18.0

## Welder - Automotive Welding, Cutting & Modification

**Technology and Health Division**

**Certificate T0931**

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

**Required Courses:**

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

Total Units 30.0

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

## Welder - Gas Tungsten Arc Welding

**Technology and Health Division**

**Certificate T0932**

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

**Required Courses:**

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

Total Units 27.0

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

## Welder - Semiautomatic Arc Welding

**Technology and Health Division**

**Certificate T0933**

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

**Required Courses:**

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

Total Units 30.0

Note: Any higher level welding courses may be substituted for WELD 40.
Programs of Study
Leading to an Associate Degree
PROGRAMS OF STUDY LEADING TO AN ASSOCIATE DEGREE

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

GENERAL REQUIREMENTS FOR AN ASSOCIATE DEGREE

Application for Graduation

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

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

Fall: deadline to apply for fall graduation is the end of the ninth week.
Winter: deadline to apply for winter graduation is the end of the ninth week of the fall semester.
Spring: deadline to apply for spring graduation is the end of the ninth week.
Summer: deadline to apply for summer graduation is the end of the ninth week of the spring semester.

Students should check the Schedule of Classes in the Key Dates section for specific deadline dates for any given semester. Applications received after the deadline will be processed with the next graduation cycle. Students may apply for graduation one semester prior to completing all required coursework. Once the degree has been conferred, the degree will be posted to the student’s academic record and will appear on the transcript. Students will also receive their diplomas in the mail thereafter. If a student is denied graduation, he or she will be informed in writing.

Multiple degrees

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

Residency Requirement

The Residency Requirement for Mt. San Antonio College can be met in either of two ways:
1. 12 Units in residence and enrollment in the last semester, or
2. 45 Units in residence if the last semester is not at Mt. SAC.

GENERAL EDUCATION REQUIREMENTS

Philosophy Statement

General education is the distinguishing feature of higher education. It is a broadly-based core of humanistic knowledge and abilities, the acquisition of which is the distinctive characteristic of the educated person. General education courses emphasize the ability to reason, to examine issues from different perspectives, to challenge authority, and to communicate ideas logically and confidently. They instill open-mindedness, respect for differences among people, and knowledge of self. By exposing students to different fields of study, general education courses provide an understanding of the human condition and of human accomplishments and encourage a lifelong interest in learning. Together with other Mt. San Antonio College degree requirements, the general education component of the associate degree prepares students to:

- transfer to and function successfully in a baccalaureate degree-granting institution;
- enter the work force as a competent, productive citizen;
- live a richer, more rewarding life.

General education courses are not primarily skills-based, nor are they limited to, or more appropriate for, majors in a specialized field of study. Courses that fulfill general education requirements must:
1. Require post-secondary level skills in reading, writing, quantitative reasoning, and critical thinking.

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

GRADUATION REQUIREMENTS FOR 2015-16

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

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

General Education Requirements: At least 24 Units are required which shall include courses in each of the General Education areas, A through E (see pages 68-69). 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: NECE, KINA, KINF, KINL, KINS, KINX with a grade of “C” or better or “CR”.

Reading Competency: This requirement is met by attaining eligibility for READ 100. Eligibility for READ 100 can be acquired by completing one of the following with a grade of “C” or better:
- READ 90 Reading College Texts
- AMLA 33R American Language Advanced Reading
- or by obtaining eligibility for READ 100 on the Reading Placement Test.

Math Competency: This requirement is met by completing one of the following with a grade of “C” or better:
1. Math 71 Intermediate Algebra, or
   Math 71B Intermediate Algebra - Second Half or
   Math 71X Practical Intermediate Algebra or
2. Completing a more advanced college level mathematics course.
   or
3. Obtaining a satisfactory score on the Intermediate Algebra Competency Examination.

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

Residency Requirement: The residency requirement for Mt. San Antonio College can be met in either of two ways:
1. 12 Units in residence and enrollment in last semester, or
2. 45 Units in residence if last semester is not at Mt. SAC.

Additional Requirements for the Associate in Science degree

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

Additional Requirements for the Associate in Arts degree

Students must complete a pattern of 18 or more Units from the courses identified within a specific area of emphasis with a minimum grade of “C” in all courses. See pages 96-101 for listings of the Associate in Arts Degree in Liberal Arts & Sciences with areas of emphasis.
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
B. Science and Mathematics
C. Humanities
D. Social Sciences
E. Lifelong Understanding and Self-Development

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

A. Communication and Critical Thinking

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

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

B. Science and Mathematics

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

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

C. Humanities

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

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

D. Social Sciences

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

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

E. Lifelong Understanding and Self-Development

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

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

GENERAL EDUCATION OUTCOMES (GEOS)

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

http://www.mtsac.edu/instruction/generaled/geos_mtsac.html

PROGRAM AND COURSE STUDENT LEARNING OUTCOMES (SLOs)

Program and course student learning outcomes are statements that define the knowledge, skills, and perspectives acquired by students who satisfy program and course requirements. It is through the assessment of SLOs that the curriculum will be evaluated for improvements. SLOs will be assessed by faculty who teach courses and oversee programs. The SLOs can be found at:

http://www.mtsac.edu/instruction/outcomes/sloinfo.html

Adapted from CSU Executive Order 595 and Title 5 Section 40405.1
# Programs of Study Leading to an Associate Degree

<table>
<thead>
<tr>
<th>Program Area</th>
<th>Course Title</th>
<th>Description</th>
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<td><strong>LIFE SCIENCES</strong></td>
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<td><strong>GENERAL EDUCATION REQUIREMENTS FOR 2015-16</strong></td>
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<td>*HIST 16</td>
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<td>*HIST 36</td>
<td>Women in American History</td>
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<td>*HIST 39</td>
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<tr>
<td>*HIST 3 History of the United States</td>
<td>*HIST 4 History of the United States: Prehistoric to Early Modern</td>
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<tr>
<td>*HIST 7 History of the United States to 1877</td>
<td>*HIST 8 History of the United States from 1865 to 1900</td>
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<td>*HIST 8H History of the United States from 1865 to 1900 – Honors</td>
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<td>*HIST 30 History of the African American Experience, 1619-1877</td>
<td>*HIST 31 History of the African American Experience, 1865-1900</td>
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<td>POLI 2 Comparative Politics</td>
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<td><strong>Elective Courses</strong> — select at least one [1] course from the following (3 Units):</td>
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<td>POLS 10 Environmental Politics</td>
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<tr>
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<tr>
<td>BUSC 1BH Principles of Economics — Microeconomics</td>
<td>R-TV 1 Introduction to Electronic Media</td>
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<tr>
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<td>SOC 1 Sociology</td>
</tr>
<tr>
<td><strong>CHILD 10 Child and Adolescent Development</strong></td>
<td>SOC 1H Sociology — Honors</td>
</tr>
<tr>
<td><strong>CHILD 10H Child Growth and Lifespan Development — Honors</strong></td>
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<td>*HIST 10 History of Premodern Asia</td>
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<td>*HIST 16 The Wild West — A History, 1800-1890</td>
</tr>
<tr>
<td>*HIST 4H History of Early Modern to the Present</td>
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<td>JOUR 101 Race, Culture, Sex, and Mass Media Images</td>
<td>JOUR 107 Race, Culture, Sex, and Mass Media Images</td>
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<td><strong>Elective Courses</strong> — select at least one [1] course</td>
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<td>NF 10 Nutrition for Personal Health and Wellness</td>
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<td>*POLI 5 Political Theory I — Ancient to Contemporary</td>
<td>SOC 1H Sociology — Honors</td>
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<td>*POLI 7 Political Theory II — Early Modern to Contemporary</td>
<td>SOC 2H Contemporary Social Problems</td>
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<td><strong>CHILD 1 Child, Family, School and Community</strong></td>
<td>SOC 4 Introduction to Gerontology</td>
</tr>
<tr>
<td>*CHILD 10 Child Growth and Lifespan Development — Honors</td>
<td>SOC 5 Introduction to Criminology</td>
</tr>
<tr>
<td><strong>CHILD 10H Child Growth and Lifespan Development — Honors</strong></td>
<td>SOC 5H Introduction to Criminology — Honors</td>
</tr>
<tr>
<td><strong>CHILD 11 Child and Adolescent Development</strong></td>
<td>SOC 14 Marriage and the Family — Honors</td>
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*Courses may not be double counted to satisfy more than one area, even if a course is listed in more than one area.*
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 65-66. For further information, please consult with the Counseling Center.

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Administrative Assistant

Business Division
Degree S0514

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

Required Courses:

- BUSO 25 Business Communications 3.0
- BUSO 26 Oral Communications for Business 3.0
- CISB 10 Office Skills 3.0
- CISB 15 Microcomputer Applications 3.5
- CISB 16 Macintosh Applications 2.0
- CISB 21 Microsoft Excel 3.0
- CISB 31 Microsoft Word 3.0
- CISB 51 Microsoft PowerPoint 3.0

Select one (1) course or any one (1) combination lecture-lab course from:

- CISO 11 Database Management 3.0
- CISO 11L Database Management 0.5
  - Microsoft Access
  - Microsoft Access Laboratory
- CISN 21 Windows Operating System 3.0
- CISS 11 Practical Computer Security 2.0
- CISW 15 Web Site Development 3.5

Total Units 25.5 - 27.0

Agri-Technology

Natural Sciences Division
Degree S0101

The program of courses in Agriculture is designed to provide the student with a combination of practical skills and technical knowledge. The following programs list all courses needed to satisfy major requirements. Students may obtain certificates upon completion of required courses listed. Additional courses needed for completion of the Degree are listed in this catalog. It is recommended that all students consult with the department chairperson, faculty advisor, or counselor to plan an educational plan.

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

Required Courses:

- AGAN 1 Animal Science 3.0
- AGAN 2 Animal Science 3.0
- AGOR 1 Horticultural Science 3.0
- AGOR 27 Landscaping 3.0
- AGOR 56 Landscape Design 3.0
- AGOR 71 Landscape Construction Fundamentals 3.0

PLUS select three (3) courses from:

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

Total Units 30.0 - 31.0

Airframe and Aircraft Powerplant Maintenance Technology - Day
Technology and Health Division
Degree S0911

This program prepares students to enter employment as a certified airframe and powerplant technician in the aircraft maintenance industry. Training is given in the overhaul of various airframes and powerplants and their components. Completion of this program leads to an Associate in Science degree. Two state-awarded certificates are also available upon successful completion of this program - on certificate in Airframe Maintenance.
Technology and one certificate in Aircraft Powerplant Maintenance Technology. Excellent opportunities for employment exist in this area of training. Certain administrative, quality control, and flight personnel careers require the applicant to hold a valid A & P Certificate. This program offers a day or evening program option. The only difference between the two options is the course numbering and time required to complete the program. Day program courses AIRM 65A and 65B are equivalent to evening program courses AIRM 95A, 95B, 96A, 96B, 97A, 97B, 98A, and 98B. Day program courses AIRM 66A and 66B are equivalent to evening program courses AIRM 90A, 90B, 91A, 91B, 92A, 92B, 93A, and 93B. This program offers a day or evening program option. The only difference between the two options is the course numbering and time required to complete the program. Day program courses AIRM 65A and 65B are equivalent to evening program courses AIRM 95A, 95B, 96A, 96B, 97A, 97B, 98A, and 98B. Day program courses AIRM 66A and 66B are equivalent to evening program courses AIRM 90A, 90B, 91A, 91B, 92A, 92B, 93A, and 93B.

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

### Required Courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Units</th>
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<td>Aircraft Powerplant Maintenance Technology</td>
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<td>Aircraft Powerplant Maintenance Technology</td>
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<tr>
<td>AIRM 66A</td>
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<tr>
<td>AIRM 66B</td>
<td>Airframe Maintenance Technology: Reciprocating &amp; Turbine Systems</td>
<td>13.0</td>
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<tr>
<td>AIRM 70A</td>
<td>Aircraft Maintenance Electricity and Electronics</td>
<td>3.0</td>
</tr>
<tr>
<td>AIRM 70B</td>
<td>Aircraft Maintenance Electricity and Electronics</td>
<td>3.0</td>
</tr>
<tr>
<td>AIRM 71</td>
<td>Aviation Maintenance Science</td>
<td>6.0</td>
</tr>
<tr>
<td>AIRM 72</td>
<td>Aircraft Materials and Processes</td>
<td>1.5</td>
</tr>
<tr>
<td>AIRM 73</td>
<td>Aircraft Welding</td>
<td>1.5</td>
</tr>
<tr>
<td>AIRM 90A</td>
<td>Airframe Maintenance Technology</td>
<td>3.0</td>
</tr>
<tr>
<td>AIRM 90B</td>
<td>Airframe Maintenance Technology: Structure and Design</td>
<td>3.0</td>
</tr>
<tr>
<td>AIRM 91A</td>
<td>Airframe Maintenance Technology</td>
<td>3.0</td>
</tr>
<tr>
<td>AIRM 91B</td>
<td>Airframe Maintenance Technology: Aluminum Repair</td>
<td>3.0</td>
</tr>
<tr>
<td>AIRM 92A</td>
<td>Airframe Maintenance Technology: Hydraulics &amp; Pneu</td>
<td>3.0</td>
</tr>
<tr>
<td>AIRM 92B</td>
<td>Airframe Maintenance Technology: Systems</td>
<td>3.0</td>
</tr>
<tr>
<td>AIRM 93A</td>
<td>Airframe Maintenance Technology: Fire Suppression</td>
<td>3.0</td>
</tr>
<tr>
<td>AIRM 95A</td>
<td>Aircraft Powerplant Maintenance Technology</td>
<td>3.0</td>
</tr>
<tr>
<td>AIRM 95B</td>
<td>Aircraft Powerplant Maintenance Technology: Reciprocating Engines</td>
<td>3.0</td>
</tr>
<tr>
<td>AIRM 96A</td>
<td>Aircraft Powerplant Maintenance Technology: Turbine Engines</td>
<td>3.0</td>
</tr>
<tr>
<td>AIRM 96B</td>
<td>Aircraft Powerplant Maintenance Technology: Propellers</td>
<td>3.0</td>
</tr>
<tr>
<td>AIRM 97A</td>
<td>Aircraft Powerplant Maintenance Technology: Instrumentation</td>
<td>3.0</td>
</tr>
<tr>
<td>AIRM 98A</td>
<td>Aircraft Powerplant Maintenance Technology: Fuel Meter Systems</td>
<td>3.0</td>
</tr>
<tr>
<td>AIRM 98B</td>
<td>Aircraft Powerplant Maintenance Technology: Ignition Systems</td>
<td>3.0</td>
</tr>
<tr>
<td>AIRM 99B</td>
<td>Aircraft Powerplant Maintenance Technology: Lubricating Systems</td>
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</tbody>
</table>

**Total Units:** 63.0

### Recommended Electives:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AIRM 74</td>
<td>Aircraft Maintenance Technology - Work Experience</td>
<td>2.0</td>
</tr>
<tr>
<td>AIRM 80</td>
<td>Lab Studies in Aircraft Maintenance Technology</td>
<td>0.5</td>
</tr>
<tr>
<td>PHYS 1</td>
<td>Physics</td>
<td>4.0</td>
</tr>
</tbody>
</table>

**Total Units:** 7.0

### Programs of Study Leading to an Associate Degree

**Airframe and Aircraft Powerplant Maintenance Technology - Evening Technology and Health Division**

**Degree S0951**

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

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

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

### Required Courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AIRM 65A</td>
<td>Aircraft Powerplant Maintenance Technology</td>
<td>13.0</td>
</tr>
<tr>
<td>AIRM 65B</td>
<td>Aircraft Powerplant Maintenance Technology</td>
<td>13.0</td>
</tr>
<tr>
<td>AIRM 66A</td>
<td>Airframe Maintenance Structures</td>
<td>13.0</td>
</tr>
<tr>
<td>AIRM 66B</td>
<td>Airframe Maintenance Technology: Reciprocating &amp; Turbine Systems</td>
<td>13.0</td>
</tr>
<tr>
<td>AIRM 70A</td>
<td>Aircraft Maintenance Electricity and Electronics</td>
<td>3.0</td>
</tr>
<tr>
<td>AIRM 70B</td>
<td>Aircraft Maintenance Electricity and Electronics</td>
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<tr>
<td>AIRM 73</td>
<td>Aircraft Welding</td>
<td>1.5</td>
</tr>
<tr>
<td>AIRM 90A</td>
<td>Airframe Maintenance Technology</td>
<td>3.0</td>
</tr>
<tr>
<td>AIRM 90B</td>
<td>Airframe Maintenance Technology: Structure and Design</td>
<td>3.0</td>
</tr>
<tr>
<td>AIRM 91A</td>
<td>Airframe Maintenance Technology</td>
<td>3.0</td>
</tr>
<tr>
<td>AIRM 91B</td>
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<td>3.0</td>
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<td>Airframe Maintenance Technology: Hydraulics &amp; Pneu</td>
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</tr>
<tr>
<td>AIRM 92B</td>
<td>Airframe Maintenance Technology: Systems</td>
<td>3.0</td>
</tr>
<tr>
<td>AIRM 93A</td>
<td>Airframe Maintenance Technology: Fire Suppression</td>
<td>3.0</td>
</tr>
<tr>
<td>AIRM 95A</td>
<td>Aircraft Powerplant Maintenance Technology</td>
<td>3.0</td>
</tr>
<tr>
<td>AIRM 95B</td>
<td>Aircraft Powerplant Maintenance Technology: Reciprocating Engines</td>
<td>3.0</td>
</tr>
<tr>
<td>AIRM 96A</td>
<td>Aircraft Powerplant Maintenance Technology: Turbine Engines</td>
<td>3.0</td>
</tr>
<tr>
<td>AIRM 96B</td>
<td>Aircraft Powerplant Maintenance Technology: Propellers</td>
<td>3.0</td>
</tr>
<tr>
<td>AIRM 97A</td>
<td>Aircraft Powerplant Maintenance Technology: Instrumentation</td>
<td>3.0</td>
</tr>
<tr>
<td>AIRM 97B</td>
<td>Aircraft Powerplant Maintenance Technology: Fuel Meter Systems</td>
<td>3.0</td>
</tr>
<tr>
<td>AIRM 98A</td>
<td>Aircraft Powerplant Maintenance Technology: Ignition Systems</td>
<td>3.0</td>
</tr>
<tr>
<td>AIRM 98B</td>
<td>Aircraft Powerplant Maintenance Technology: Lubricating Systems</td>
<td>3.0</td>
</tr>
</tbody>
</table>

**Total Units:** 63.0

### Recommended Electives:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
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</tr>
</thead>
<tbody>
<tr>
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<tr>
<td>AIRM 80</td>
<td>Lab Studies in Aircraft Maintenance Technology</td>
<td>0.5</td>
</tr>
<tr>
<td>PHYS 1</td>
<td>Physics</td>
<td>4.0</td>
</tr>
</tbody>
</table>

**Total Units:** 7.0

### Alcohol/Drug Counseling Technology and Health Division

**Degree S2101**

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

#### Required Courses:

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

#### Required skill courses:

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

#### Required field work courses:

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

#### Select two (2) courses from:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHLD 10</td>
<td>Child Growth and Lifespan Development</td>
<td>3.0</td>
</tr>
<tr>
<td>PSYC 1A</td>
<td>Introduction to Psychology</td>
<td>3.0</td>
</tr>
<tr>
<td>PSYC 1AH</td>
<td>Introduction to Psychology – Honors</td>
<td>3.0</td>
</tr>
<tr>
<td>SOC 1</td>
<td>Sociology</td>
<td>3.0</td>
</tr>
<tr>
<td>SOC 1H</td>
<td>Sociology – Honors</td>
<td>3.0</td>
</tr>
<tr>
<td>SOC 14</td>
<td>Marriage and the Family</td>
<td>3.0</td>
</tr>
</tbody>
</table>
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) 274-7500, 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 highly charged emotional environment
- Exposed to products containing latex
- Subject to burns and cuts
- Subject to hazards of flammable, explosive gases
- Subject to heavy lifting
- 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
- Exposed to highly charged emotional environment which can be stressful intense

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

Animation
Arts Division
Degree S1006
The Animation Program offers an integrated/inter-disciplinary 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 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. This Animation AS Degree provides expertise leading to employment opportunities as junior animators, character designers, storyboard artists, 3D modelers and game designers.

Required Courses:
ANIM 100 Digital Paint and Ink 3.0
ANIM 101A Drawing - Gesture and Figure 3.0
ANIM 104 Drawing Fundamentals 3.0
ARTD 15A Drawing: Beginning 3.0
ANIM 108 Principles of Animation 3.0
ANIM 115 Storyboarding 3.0
ANIM 116 Character Development 1.5
ANIM 130 Introduction to 3D Modeling 3.0
ANIM 131 Introduction to Gaming 3.0
ANIM 148 Demo Reel 3.0
ARTD 290 Portfolio 3.0
ARTD 17A Drawing: Life 3.0

Recommended Electives
ANIM 107 Digital Animation 3.0
ANIM 175 Digital Animation 3.0
ARTD 16 Drawing: Perspective 3.0
ARTD 16 Drawing: Perspective 3.0
Total Units 31.5

Applied Laboratory
Science Technology (ALST)
Natural Sciences Division
Degree S0307
This program provides theoretical and technical training to prepare students for employment as entry-level chemical technicians in fields such as chemical quality control, chemical process control, analytical chemistry, water quality, and research and development. The program includes a broad-based overview of workforce options and emphasizes development of analytical skills, instrument proficiency, critical thinking, and troubleshooting of experimental designs and outcomes.

Required Courses:
BUSM 10 Principles of Continuous Quality Improvement 3.0
CHEM 20 Introductory Organic and Biochemistry 5.0
CHEM 50 General Chemistry I 5.0
CHEM 50H General Chemistry I - Honors 5.0
CHEM 51H General Chemistry II 5.0
PLUS select (6-7) six or seven Units from:
MICR 22 Microbiology 4.0
PHIL 12 Introduction to Ethics 3.0

Architectural Design
Concentration
Technology and Health Division
Degree S0390
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 a professional school of architecture. 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.

Required Courses:
ARCH 101 Design I - Elements of Design 4.0
ARCH 102 Design II - Architectural Design 4.0
ARCH 121 CADD and Digital Media Level I 4.0
ARCH 122 Architectural Representations 4.0
ARCH 141 Design Drawing and Communication 4.0
ARCH 142 Architectural Materials 4.0
ARCH 201 Design III - Environmental Design 4.0
ARCH 202 Design IV - Advanced Project 4.0
ARCH 221 Architectural Illustration 3.0
ARCH 222 Advanced Digital Design, Illustration and Animation 3.0
ARCH 250 World Architecture I 3.0
ARCH 251 World Architecture II 3.0
Total Units 44.0

ENGL 1C, MATH 150, and PHYS 2AG are typically required for transfer to a professional school of architecture. Verify all requirements with the transfer institution.
Architectural Technology Concentration

Technology and Health Division

Degree S0392

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 a professional school of architecture. The Technology Concentration focuses upon building and construction technology, documentation, codes, and computer applications. Current application building and construction technology leads to architecture. The Technology Concentration focuses or preparation for transfer to a professional school of architecture and related areas. The student is provided with an option of direct employment into the field.

Required Courses:

- ARCH 101 Design I - Elements of Design 4.0
- ARCH 121 CADD and Digital Media Level I 4.0
- ARCH 141 Design Drawing and Communication 4.0
- ARCH 142 Architectural Materials and Specifications 4.0
- ARCH 145 Building and Zoning Codes 3.0
- ARCH 146 Architectural Drawings and Fabrications 3.0
- ARCH 147 Architectural CAD and BIM 3.0
- ARCH 247 Architectural CAD Working Drawings 3.0
- INSP 70 Elements of Construction 3.0
- INSP 71 Construction Estimating 3.0
- EDT 26 Civil Engineering Technology and CAD 3.0

Total Units 37.0

An advanced MATH course and PHYS 2AG typically are required for transfer to a professional school of architecture. Verify all requirements with the transfer institution.

Aviation Science

Technology and Health Division

Degree S0910

This curriculum meets the requirements of the Federal Aviation Administration Air Traffic Collegiate Training Initiative (AT-CTI). Under 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. There are no prerequisites or enrollment limitations.

Required Courses:

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

Total Units 31.5

Recommended Electives:

- AERO 150 Commercial Pilot Ground School 3.0
- AERO 202 Aircraft and Engines 3.0
- BUSM 60 Human Relations in Business 3.0
- BUSM 81 Work Experience in Business 1.0
- BUSM 85 Special Issues in Business 2.0
- BUSM 85 Special Issues in Marketing 2.0

Total Units 29.5

Building Automation

Technology and Health Division

Degree S0308

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

Required Courses:

- AIRT 203 Enroute Air Traffic Control 3.0
- AIRT 251 Air Traffic Control Team Skills 1.5

Total Units 29.5

Business: Management

Business Division

Degree S0506

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

Required Courses:

- BUSM 60 Human Relations in Business 3.0
- BUSM 81 Work Experience in Business 1.0
- BUSM 85 Special Issues in Business 2.0
- BUSM 85 Special Issues in Marketing 2.0

Total Units 29.5

Business: Retail Management

Business Division

Degree S0509

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

Required Courses:

- BUSM 60 Human Relations in Business 3.0
- BUSM 81 Work Experience in Business 1.0
- BUSM 85 Special Issues in Business 2.0
- BUSM 85 Special Issues in Marketing 2.0
- BUSS 36 Principles of Marketing 3.0
- CISB 15 Microcomputer Applications 3.5
- Total Units 32.5

Recommended Electives:

- BUSS 50 Retail Store Management and Merchandising 3.0

Total Units 29.5

Business: Retail Management

Business Division

Degree 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.

Required Courses:

- BUSM 60 Human Relations in Business 3.0
- BUSM 81 Work Experience in Business 1.0
- BUSM 85 Special Issues in Business 2.0
- BUSM 85 Special Issues in Marketing 2.0
- BUSS 36 Principles of Marketing 3.0
- CISB 15 Microcomputer Applications 3.5
- Total Units 32.5

Recommended Electives:

- BUSS 50 Retail Store Management and Merchandising 3.0

Total Units 29.5
Child Development

Business Division
Degree S1315

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

Required Courses:
- CHLD 1 Child, Family, School and Community 3.0
- CHLD 5 Principles and Practices 3.0 in Child Development Programs
- CHLD 6 Survey of Child Development Curriculum 3.0
- CHLD 11 Child and Adolescent Development 3.0
- CHLD 64 Health, Safety and Nutrition of Children 3.0
- CHLD 66 Early Childhood Development Observation and Assessment 2.0
- CHLD 66L Early Childhood Development Observation and Assessment Laboratory 1.0
- CHLD 67 Early Childhood Education Practicum 2.0
- CHLD 67L Early Childhood Education Practicum Laboratory 1.0
- CHLD 68 Children With Special Needs 3.0
- CHLD 69 Early Childhood Development Field Work Seminar 2.0
- CHLD 84 Guidance and Discipline in Child Development Settings 1.0
- CHLD 91 Early Childhood Development Field Work 1.0

Total Units 28.0

Recommended Electives:
- CHLD 50 Teaching in a Diverse Society 3.0
- CHLD 51 Early Literacy in Child Development 3.0
- CHLD 61 Language Arts and Art Media for Young Children 3.0
- CHLD 62 Music and Motor Development for Young Children 3.0
- CHLD 63 Creative Sciencing and Math for Young Children 3.0
- CHLD 71A Administration of Child Development Programs 3.0
- CHLD 71B Management/Marketing/Personnel for ECD Programs 3.0
- CHLD 72 Teacher, Parent, and Child Relationships 3.0
- CHLD 73 Infant/Toddler Care and Development 3.0

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

Commercial Flight

Technology and Health Division
Degree S0912

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

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

Required Courses:
- AERO 100 Primary Pilot Ground School 4.0
- AERO 102 Aviation Weather 3.0
- AERO 104 Federal Aviation Regulations 2.0
- AERO 150 Commercial Pilot Ground School 3.0
- AERO 152 Air Transportation 3.0
- AERO 200 Aviation Safety and Human Factors 3.0
- AERO 202 Aircraft and Engines 3.0
- AERO 250 Navigation 3.0
- AERO 252 Instrument Ground School 3.0

Total Units 27.0

Recommended Electives:
- AIRT 151 Aircraft Recognition and Performance 3.0

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

Computer - Database Management Systems

Business Division
Degree S0706

The A.S. Degree in Database Management Systems is a two-year program designed to prepare students for careers in database management systems. The degree offers a balanced catalog of classes that prepares students to work with both small and enterprise-level computer databases required by industry. Emphasis is placed on current techniques used in relational database management systems, including creating and maintaining table data, setting appropriate relationships between tables, querying needed information, creating additional objects needed for the dissemination of information from the database and setting properties to help ensure the security of data. In addition, VBA (Visual Basic for Applications) programming is covered. The enterprise level also concentrates in SQL development. In addition, the degree covers the theory of database design, including normalization and other current database topics. Student wishing a bachelor’s degree (transfer program) should meet with a counselor or advisor to discuss transferability of courses. Opportunities that are available after completion of this degree include, but are not limited to, database administrators, designers and developers, and database systems analysts.

Required Courses:
- CISD 11 Database Management - Oracle 3.0
- CISD 21 Database Management 3.0
- CISD 31 Database Management - Microsoft SQL Server 3.0
- CISD 40 Database Management - Microsoft SQL Server Laboratory 0.5

Total Units 26.5 - 29.0

Computer and Networking Technology

Technology and Health Division
Degree S0725

The Computer and Networking Technology program prepares students to become computer and networking service technicians. The program provides foundations in basic electricity and electronics, operating systems, computer service and troubleshooting, and customer relations, as well as more advanced training in networks, servers, and security. Students learn to install, configure, maintain, troubleshoot, and repair computers and networks. Students will become fully prepared to take the A+, Network+, Server+, and Security+ certification tests sponsored by CompTIA and offered at testing centers throughout the country. These Industry certifications are recognized worldwide as benchmarks for the computer and networking technician. Further, students will have requisite skills upon which to seek additional I.T. certifications available for the computer and networking fields. Two certificate programs in Computer and Networking Technology are also available. Please see the “Certificates” section of the college catalog for descriptions and course requirements.
Programs of Study Leading to an Associate Degree

Required Courses:
- CNET 50 PC Servicing 4.0
- CNET 52 PC Operating Systems 4.0
- CNET 54 PC Troubleshooting 4.0
- CNET 56 Computer Networks 4.0
- CNET 58 Server Systems 4.0
- CNET 60 A+ Certification Preparation 2.0
- CNET 62 Network+ Certification Preparation 2.0
- CNET 64 Server+ Certification Preparation 2.0
- CNET 66 Security+ Certification Preparation 2.0
- ELEC 11 Technical Applications in Microcomputers
- CISB 15 Microcomputer Applications 3.5
- ELEC 50A Electronic Circuits (DC) 4.0
- ELEC 50B Electronic Circuits (AC) 4.0
- ELEC 56 Digital Electronics 4.0
- TECH 60 Customer Relations for the Technician 2.0

Total Units 45.0 - 45.5

Recommended Electives:
- ELEC 11 Technical Applications in Microcomputers
- CISB 15 Microcomputer Applications 3.5
- ELEC 50A Electronic Circuits (DC) 4.0
- ELEC 50B Electronic Circuits (AC) 4.0
- ELEC 56 Digital Electronics 4.0

Computer Network Administration and Security Management

Degree Division

Business Division
Degree S0701

Computer Network Administration and Security Management is a two-year program leading to the Associate in Science (A.S.) degree. It prepares individuals for employment in the computer/information technology field in such areas as network administrator and security management administrator.

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

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

Required Courses:

- CISB 11 Computer Information Systems 3.5
- CISB 21 Windows Operating System 3.0
- CISB 31 Linux Operating System 3.0
- CISB 31L Linux Operating System Laboratory 0.5
- CISB 34 Linux Networking and Security 3.0
- CISB 34L Linux Networking and Security Laboratory
- CISB 11L Programming in Visual Basic Laboratory 0.5
- CISB 11 Programming in Visual Basic 3.0
- CISB 21 Programming in Java 3.0
- CISB 21L Programming in Java Laboratory 0.5
- CISB 31 Programming in C++ 3.0

Total Units 23.0 - 26.0

Computer Programming

Business Division
Degree S7302

The A.S. Degree in Computer Programming is designed to prepare students for a career in computer programming. The degree offers a balanced set of classes that provides students with client, server and database programming skills required by the industry. Emphasis is placed on object-oriented programming applications, configuring servers, creating and navigating databases, and reusable software components. Students will demonstrate the ability to design and implement business environment applications that will contain the front end user interface and back end database. Student in this program select one of the following three programming language concentrations: C++, Visual Basic.NET or Java. Career opportunities available after the completion of this degree include programming for systems, mobile devices, device drivers and software engineering.

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

Required Courses:

- CISB 11 Computer Information Systems 3.5
- CISB 15 Microcomputer Applications 3.5
- CISB 21 Windows Operating System 3.0
- CISB 31 Linux Operating System 3.0
- CISB 31L Linux Operating System Laboratory 0.5
- CISB 34 Linux Networking and Security 3.0
- CISB 34L Linux Networking and Security Laboratory
- CISB 11L Programming in Visual Basic Laboratory 0.5
- CISB 11 Programming in Visual Basic 3.0
- CISB 21 Programming in Java 3.0
- CISB 21L Programming in Java Laboratory 0.5
- CISB 31 Programming in C++ 3.0

Total Units 23.0 - 26.0

Required Electives (7 Units)
PLUS one of the following concentrations:

- **C++**
  - CISP 31 Programming in C++ 3.0
  - CISP 31L Programming in C++ Laboratory 0.5
  - CISP 34 Advanced C++ Programming 3.0
  - CISP 34L Advanced C++ Programming Laboratory 0.5

- **Visual Basic**
  - CISP 31 Programming in Visual Basic 3.0
  - CISP 31L Programming in Visual Basic Laboratory 0.5
  - CISP 14 Advanced Visual Basic.NET 3.0
  - CISP 14L Advanced Visual Basic.NET Laboratory 0.5

- **Java**
  - CISP 21 Programming in Java 3.0
  - CISP 21L Programming in Java Laboratory 0.5
  - CISP 24 Advanced Java Programming 3.0
  - CISP 24L Advanced Java Laboratory 0.5

Total Units 29.0 - 31.5
### Construction Inspection
**Technology and Health Division**
**Degree S0920**
This program is intended to prepare students for employment following graduation. Students desiring a Bachelor’s Degree (transfer program) should consult with a counselor or advisor to discuss transferability of courses.

**Required Courses:**
- ARCH 142 Architectural Materials and Specifications  4.0
- ARCH 145 Building and Zoning Codes  3.0
- INSP 17 Legal Aspects/Construction  3.0
- INSP 70 Elements of Construction  3.0
- INSP 71 Construction Estimating  3.0
- INSP 87 Fund Construct Inspect  3.0

**Total Units**  19.0

**Recommended Electives:**
- ARCH 141 Architectural Drawing  3.0
- ARCH 146 Architectural Drawings and Fabrications  3.0
- INSP 67 Reading Construction Drawings  3.0

### Educational Paraprofessional (Instructional Assistant)
**Humanities and Social Sciences Division**
**Degree S0375**

This degree program prepares paraprofessionals to work with children in a variety of ways that enhance learning. Graduates will be able to assist classroom teachers in working with K-12 students, including students with special needs. This associate degree certifies that paraprofessionals are “highly qualified” as specified by federal legislation.

**Required Courses**
- CHLD 1 Child, Family, School and Community  3.0
- CHLD 10 Child Growth and Lifespan Development  3.0
- CHLD 10H Child Growth and Lifespan Development - Honors  3.0
- CHLD 11 Child and Adolescent Development  3.0
- PSYC 14 Developmental Psychology  3.0
- PSYC 15 Introduction to Child Psychology  3.0
- CHLD 68 Children With Special Needs  3.0
- EDUC 10 Introduction to Education  3.0
- EDUC 16 Aspects and Issues in Teaching  3.0

**Required Electives**
Select One (1) course from: (3 Units)
- CHLD 51 Early Literacy in Child Development  3.0
- CHLD 64 Health, Safety and Nutrition of Children  3.0
- ENGL 81 Language Acquisition  3.0
- KIN 3 First Aid and CPR  3.0
- LIT 40 Children’s Literature  3.0

**Total Units**  18.0

### Electronics and Computer Engineering Technology
**Technology and Health Division**
**Degree S0906**
The Electronics and Computer Engineering Technology (ECE) certificate program prepares individuals either for initial employment or for enhancement of existing skills in the electronics field, or for transfer into B.S. programs in Electronics Technology or Industrial Technology offered in the CSU system. Required courses for the certificate — many of which articulate directly to their equivalents at the CSUs are the same as for the ECET A.S. degree program except for the college General Education requirement. In addition to exposing students to core topics such as components and circuits, the program includes coursework in advanced areas including microcontrollers and interfacing, communications, and industrial electronic controls. Nearly all laboratories have new, state-of-the-art equipment to provide students with quality, hands-on learning experiences. Students completing the ECET certificate program possess ample skills to make them versatile employees. Typical technician-level job classifications include fields service technician, field engineer, computer service technician, customer service technician, communications technician, maintenance technician, and electronics technician. All students completing the certificate program are automatically eligible to receive, without further examination, the 4th class technician license from the National Association of Radio and Telecommunications Engineers (N.A.R.T.E.).

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

**Total Units**  45.0

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

### Emergency Medical Services
**Technology and Health Division**
**Degree S1210**
Students who complete the required courses listed below for the Emergency Medical Technician-Paramedic (EMT-P) Certificate and who also complete the graduation requirements of Mt. San Antonio College will be awarded the Degree in Emergency Medical Services. This Paramedic Program is accredited by CAAHEP (Committee on Accreditation of Allied Health Education Programs) and approved by the Los Angeles Section 8 77
Programs of Study Leading to an Associate Degree

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.

Required Courses:
- EMS 10 Anatomy and Physiology 2.0 for Paramedics
- EMS 20 Emergency Cardiac Care for Paramedics 1.5
- EMS 30 Pharmacology for Paramedics 2.5
- EMS 40 Cardiology for Paramedics 5.0
- EMS 50 Paramedic Skills Competency 5.0
- EMS 60 EMS Theory for Paramedics 8.5
- EMS 70 Paramedic Clinical Internship 4.0
- EMS 80 Paramedic Field Internship 9.5

Total Units 38.0

Recommended Electives:
- ADJI 1 The Administration of the Justice System 3.0
- FIRE 1 Fire Protection Organization 3.0
- PSYC 1A Introduction to Psychology 3.0
- SOC 1 Sociology 3.0

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

Special Information
To remain in the program, students must maintain a grade of “C” (80%) or better in all courses, per state regulations. Before starting clinical rotations, students must pass a criminal background check. Upon successful completion of the required courses, students are granted a certificate documenting completion of the Paramedic Program. Students are then eligible for licensure by taking and passing both the National Registry Exam and County Paramedic accreditation exam.

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

Application Requirements:
In addition to meeting Mt. San Antonio College academic standards for admission, applicants must be in good standing and satisfy the following requirements:
1) Be an EMT-I currently certified in California.
2) Submit a letter on official stationery from a recognized EMS agency verifying completion of six (6) months of pre-hospital field experience as an EMT-I (approximately 1,200 hours) within the last two years.
3) File a college application and be accepted as a student at Mt. San Antonio College.
4) Submit an application for the Paramedic Program to the Technology and Health Division Office and runs for 29 weeks.

5) Take the Assessment of Written English, Math Placement test, and Degrees of Reading Power tests at least ten working days before the start of the pre-course EMS 1 and EMS 2. Placement examinations will be individually assessed to determine eligibility for the pre-courses. Placement tests are administered by the Assessment Center in the Student Services Center.

6) Successful completion of EMS-1, Fundamentals for Paramedics and EMS 2, Preparation for Paramedic Program.

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

NOTE: If the course(s) were taken and/or the degree obtained at Mt. San Antonio College, it is not necessary to request transcripts. Indicate in the mailing address the program for which transcripts are being sent to the Technology and Health Division Office.

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

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

ALL APPLICANTS ARE EXPECTED TO MEET THE ESSENTIAL FUNCTIONS FOR SUCCESS IN THE PARAMEDIC PROGRAM

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

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

Working Environment:
• May be exposed to infectious and contagious disease, without prior notification
• Regularly exposed to the risk of blood borne diseases
• Exposed to hazardous agents, body fluids and wastes
• Exposed to odorous chemicals and specimens
• Subject to hazards of flammable, explosive gases
• Subject to burns and cuts
• Contact with patients having different religious, 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
• Exposed to products containing latex

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

Equipment Technology
Natural Sciences Division
Degree 50118
The courses in equipment technology are designed to enable students to prepare for a career in this essential and diverse profession. This degree is part of our comprehensive Agricultural Sciences program. Our program is unique in that most courses provide hands-on experience and are designed to give the student a combination of practical skills and technical knowledge. Students who intend to transfer should meet with a counselor or advisor to check the lower division requirements in the catalog of the college or university which they will attend and also the semester and year in which courses are offered.

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

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

*Business Division*

**Degree S1308**

The A.S. Degree in Fashion Merchandising is designed to prepare students for entry-level careers in the apparel industry. This A.S. program also offers courses specializing in apparel retailing, advertising, textiles, and visual communications.

The courses emphasize the business of fashion, wholesale merchandise planning, and apparel branding targeting specific markets. Upon completion of the program, students will be able to develop marketing strategies, create promotional campaigns, understand the buying process, and analyze retail businesses.

Entry-level employment opportunities are available after completion of this program. Opportunities may include retail sales, small store merchandising, and showroom assisting.

**Required Courses:**
- FASH 8 Introduction to Fashion 3.0
- FASH 10 Clothing Construction I 3.0
- FASH 15 Aesthetic Design in Fashion 3.0
- FASH 17 Textiles 3.0
- FASH 25 Fashion Computer-Assisted Design 3.0
- FASH 59 Fashion Retailing 3.0
- FASH 62 Retail Buying and Merchandising 3.0
- FASH 63 Fashion Promotion 3.0
- FASH 66 Visual Merchandising Display 3.0

**Total Units** 27.0

**Recommended Electives:**
- KINF 53 Physical Training for the Basic Fire Academy 2.5

**Total Units** 23.5 - 40.5

**Fire Technology**

*Technology and Health Division*

**Degree S2105**

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

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

**Total Units** 27.0

**Graphic Design**

*Arts Division*

**Degree S0318**

This program is designed to provide students with a combination of creative, design, problem solving, and technical skills necessary for entry-level employment as a Graphic Designer in the Commercial Art industry. Students completing this program are eligible for advanced training or transfer to a college or university for further study.

**Required Courses:**
- ARTC 100 Graphic Design I 3.0
- ARTC 120 Graphic Design II 3.0
- ARTC 160 Typography 3.0
- ARTC 165 Illustration 3.0
- ARTC 290 Portfolio 3.0
- ARTD 15A Drawing: Beginning 3.0
- ARTD 17A Drawing: Life 3.0
- ARTD 20 Design: Two Dimensional 3.0

**General Business**

*Business Division*

**Degree S0501**

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

**Required Courses:**
- BUSA 7 Principles of Accounting - Financial 5.0
- BUSA 72 Bookkeeping - Accounting 5.0

**Total Units** 33.0

**Ref:**
mtsac.edu/instruction/sciences/agriculture

*Programs of Study Leading to an Associate Degree*

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Section 8
Programs of Study Leading to an Associate Degree

AGRI 16 Horse Production and Management 4.0
AGRI 18 Horse Ranch Management 4.0
AGRI 19 Horse Hoof Care 2.0
AGLI 20 Horse Behavior and Training 2.0
AGLI 96 Animal Sanitation and Disease Control 3.0
AGLI 97 Artificial Insemination of Livestock 2.0

Required Electives
Select six (6) Units from:
AGOR 51 Tractor and Landscape Equipment Operations
AGOR 53 Small Engine Repair I
AGOR 71 Landscape Construction Fundamentals
BUSM 20 Principles of Business
BUSM 66 Small Business Management
WELD 40 Introduction to Welding 2.0

Total Units 32.0

Human Resource Management

Business Division
Degree S0530
The Human Resource Management degree is intended to prepare students to enter the business world in the dynamic environment of human resources. Students become familiar with various approaches to business organization and the strategic nature of human resource management. Studies in human resource law, compensation systems, training, and development will provide the student a solid foundation from which to build a career in human resource management. Transfer students will gain a strong human resource management business elective base initiating further study in a variety of fields. Students active in the work arena will acquire new skills that are highly desirable in a fast-paced work force.

Required Courses:
HRM 57 Hospitality Cost Control 3.0
HRM 64 Hospitality Financial Accounting 3.0
HRM 66 Hospitality Law 3.0
HRM 70 Introduction to Lodging 3.0
PLUS one of the following (3 Units):
HRM 61 Menu Planning 3.0
HRM 62 Event Planning and Catering 3.0
HRM 91 Hospitality Work Experience 1.0
(This is a variable unit course. Three (3) Units are required)

Total Units 28.5
Industrial Design Engineering
Technology and Health Division
Degree S0331
This program is designed to prepare the student for a career in a wide range of industries including product and industrial design firms and fabrication and manufacturing companies. Students are introduced to product development from design through prototyping and fabrication for manufacturing.

Portfolio or prototype development is required on each of the semester levels. In the Level Three certificate and AS Degree course work, this will culminate in a final “senior project,” which is a portfolio that includes two-and three-dimensional design, documentation (accountability measures), presentation, and fabrication. This project will demonstrate the student’s mastery of the concepts and methodologies learned during the program.

Students desiring a Bachelor’s Degree should consult with a counselor or an educational advisor to discuss transferability of courses.

Required Courses:
IDE 110 Design Foundation - Visual Literacy 3.0
IDE 120 Introduction to CAD 3.0
IDE 130 Shop Processes 3.0
IDE 150 Design Foundations 3.0
IDE 160 Intermediate CAD 3.0
IDE 170 Introduction to Prototyping 3.0
IDE 210 Advanced Media 3.0
IDE 220 Advanced CAD 3.0
IDE 230 Intro to Mechanical Principles 3.0
IDE 240 Product Design and Viability 3.0
IDE 270 Manufacturing Processes 3.0
IDE 280 and Materials 3.0

Total Units 36.0

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

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

Required Courses:
AGOR 1 Horticultural Science 3.0
AGOR 24 Integrated Pest Management 3.0
AGOR 29 Ornamental Plants - Herbaceous 3.0
AGOR 30 Ornamental Plants - Trees and Woody Shrubs 3.0
AGOR 39 Turf Grass Production and Management 3.0
AGOR 50 Soil Science and Management 3.0
AGOR 62 Landscape Irrigation - Design and Installation 3.0
AGOR 63 Landscape Irrigation Systems Management 3.0
AGOR 91 Work Experience in Nursery Operations 3.0

Students must take at least 6 Units of any of the following:

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Interior Design
Business Division
Degree S1301
The Interior Design A.S. degree provides students with an excellent foundation for a successful career in interior design. Students will obtain the skill set necessary to obtain a variety of positions in the design field.

Required Courses:
ID 10 Introduction to Interior Design 2.0
ID 10L Introduction to Interior Design Laboratory 1.0

ID 12 Materials and Products 3.0
ID 14 History of Furniture 3.0
ID 20 Color and Design Theory I 3.0
ID 21 Color and Design Theory II 3.0
ID 22 Design Drawing for Interior Design 3.0
ID 23 Computer Aided Drawing for Interior Design 3.0
ID 25 Space Planning for Interior Design I 3.0
ID 26 Space Planning for Interior Design II 3.0
ID 27 Rapid Visualization 3.0
ID 29 Interior Design Studio I 3.0
ID 31 Building Systems for Interior Design 3.0
ID 32 Lighting Design and Theory 3.0
ID 34 Computer Aided Drawing for Interior Design II 3.0
ID 36 Portfolio Development 3.0
ID 37 Business Practices for Interior Design 3.0
ID 38 Internship in Interior Design 2.0
ID 39 Interior Design Studio II 3.0

Total Units 50.0

Recommended Electives:
AGOR 13 Landscape Design 3.0
AGOR 15 Interior Landscaping 3.0
ARCH 122 Architectural Presentations 3.0
ARTG 20 Art, Artists and Society 3.0
BUS 72 Bookkeeping - Accounting 5.0
ID 50 Interior Design Specialized Studio 3.0
ID 52 Independent Studies in Interior Design 1.0

Interior Design - Kitchen and Bath
Business Division
Degree S1302
The Interior Design: Kitchen and Bath Design A.S. degree provides students with specialized skills in the area of Kitchen and Bath Design and is accredited by the National Kitchen and Bath Association. Students will strengthen career perspectives and development work to incorporate into a professional portfolio.
This certificate may aid the student’s search for an intermediate position as an assistant to a kitchen and bath designer. Students completing this program and meeting the eligibility requirements will qualify to sit for the academic portion of the Certified Kitchen Designer (CKD) and Certified Bath Designer (CBD) upon graduation to earn the Associate Kitchen and Bath Designer (AKBD) designation.

**Required Courses:**
- ID 10  Introduction to Interior Design 2.0
- ID 10L  Introduction to Interior Design 1.0
- Laboratory
- ID 12  Materials and Products 3.0
- for Interior Design
- ID 14  History of Furniture 3.0
- and Decorative Arts
- ID 20  Color and Design Theory I 3.0
- ID 21  Color and Design Theory II 3.0
- ID 22  Design Drawing for Interior Design 3.0
- ID 23  Computer Aided Drawing 3.0
- for Interior Design I
- ID 25  Space Planning for Interior Design I 3.0
- ID 26  Space Planning for Interior Design II 3.0
- ID 27  Rapid Visualization 3.0
- ID 29  Interior Design Studio I 3.0
- ID 31  Building Systems for Interior Design 3.0
- ID 32  Lighting Design and Theory 3.0
- for Interior Design
- ID 34  Computer Aided Drawing 3.0
- for Interior Design II
- ID 37  Business Practices for Interior Design 3.0
- ID 38  Internship in Interior Design 1.0
- (1.0 - 3.0 variable unit course, 2 Units required)
- ID 39  Interior Design Studio II 3.0
- ID 40  Kitchen and Bath Studio I 3.0
- ID 41  Kitchen and Bath Studio II 3.0
- ID 48  Internship in Kitchen and Bath 1.0
- (1.0 - 3.0 variable unit course, 3 Units required)

**Total Units** 59.0

**Recommended Electives:**
- ARCH 122  Architectural Presentations 3.0
- BUSA 72  Bookkeeping - Accounting 5.0
- BUSM 66  Small Business Management 3.0
- BUSS 50  Retail Store Management 3.0

### International Business

### Business Division

**Degree S0507**

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

**Required Courses:**
- BUSL 20  International Business Law 3.0
- BUSM 20  Principles of Business 3.0
- BUSM 50  World Culture: A Business Perspective 3.0
- ANTH 22  General Cultural Anthropology 3.0
- BUSM 51  Principles of International Business 3.0
- BUSM 52  Principles of Exporting and Importing 3.0
- BUSM 61  Business Organization and Management 3.0
- BUSM 66  Small Business Management 3.0
- BUSS 36  Principles of Marketing 3.0
- BUSM 51H  Principles of International Business 3.0
- **PLUS select one (1) course (4 Units)**
- CHIN 1  Elementary Chinese 4.0
- FRCH 1  Elementary French 4.0
- GERM 1  Elementary German 4.0
- ITAL 1  Elementary Italian 4.0
- JAPN 1  Elementary Japanese 4.0
- SPAN 1  Elementary Spanish 4.0
- **Total Units** 28.0

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

### Law Enforcement

#### Technology and Health Division

**Degree S2102**

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

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

**Recommended Electives:**
- BUSM 52  Principles of Exporting and Importing 3.0
- BUSM 61  Business Organization and Management 3.0
- BUSM 66  Small Business Management 3.0
- BUSS 36  Principles of Marketing 3.0
- **PLUS select one (1) course (4 Units)**
- CHIN 1  Elementary Chinese 4.0
- FRCH 1  Elementary French 4.0
- GERM 1  Elementary German 4.0
- ITAL 1  Elementary Italian 4.0
- JAPN 1  Elementary Japanese 4.0
- SPAN 1  Elementary Spanish 4.0
- **Total Units** 28.0

**Recommended Electives:**
- BUSM 51H  Principles of International Business 3.0
- BUSM 51H  Principles of International Business 3.0
- **PLUS select one (1) course (4 Units)**
- CHIN 1  Elementary Chinese 4.0
- FRCH 1  Elementary French 4.0
- GERM 1  Elementary German 4.0
- ITAL 1  Elementary Italian 4.0
- JAPN 1  Elementary Japanese 4.0
- SPAN 1  Elementary Spanish 4.0
- **Total Units** 28.0

**Recommended Electives:**
- KINF 51  Agility Testing Preparation for Administration of Justice and Fire Technology 1.0
- KINF 52  Fitness and Conditioning for Administration of Justice, Fire Technology, and Forestry 1.0

### Licensed Vocational Nurse to RN

#### Technology and Health Division

**Degree S1201**

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

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

**Prerequisite Courses**

1. Human Anatomy, including a laboratory component, a minimum of four (4) semester units.
2. Human Physiology, including a laboratory component, a minimum of four (4) semester units.
3. Microbiology, including a laboratory component, a minimum of four (4) semester units.
4. English 1A (Writing Composition), minimum of three (3) semester units with a minimum grade of C.
5. PSYC 1A (Introduction to Psychology), minimum of three (3) semester units with a minimum grade of C.
6. CHLD 10 (Child Growth & Lifespan Development) or PSYC 14 (Developmental Psychology), minimum of three (3) semester units.

**Prerequisite Courses**

**LVN 30-Unit Option track which leads to a certificate, not a degree.**

**Prerequisite Courses**

1. Human Anatomy, including a laboratory component, a minimum of four (4) semester units.
2. Human Physiology, including a laboratory component, a minimum of four (4) semester units.
3. Microbiology, including a laboratory component, a minimum of four (4) semester units.
4. English 1A (Writing Composition), minimum of four (4) semester units.
5. PSYC 1A (Introduction to Psychology), minimum of three (3) semester units with a minimum grade of C.
6. CHLD 10 (Child Growth & Lifespan Development) or PSYC 14 (Developmental Psychology), minimum of three (3) semester units.

**Prerequisite Courses**

**LVN 30-Unit Option track which leads to a certificate, not a degree.**

**Prerequisite Courses**

1. Human Anatomy, including a laboratory component, a minimum of four (4) semester units.
2. Human Physiology, including a laboratory component, a minimum of four (4) semester units.
3. Microbiology, including a laboratory component, a minimum of four (4) semester units.
4. English 1A (Writing Composition), minimum of four (4) semester units.
5. PSYC 1A (Introduction to Psychology), minimum of three (3) semester units with a minimum grade of C.
6. CHLD 10 (Child Growth & Lifespan Development) or PSYC 14 (Developmental Psychology), minimum of three (3) 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 71 Intermediate Algebra (Preferably MATH 71 or a college level math course completed).
4. High school graduation or GED or academic degree from an accredited college/university in the United States.
5. Possess a current, active California Licensed Vocational Nurse license.
6. A physical examination, including specific immunizations is required of all candidates prior to the beginning of nursing classes.
8. Criminal background check and drug screening must be completed prior to any patient contact.
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 Associate Degree

Programs of Study Leading to an Associate Degree

SELECTION PROCESS
Students applying for admission to the Nursing Program are 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 and the Admission Assessment Test has been passed, students will enter on a first come first served basis.

The Eligibility Appointment:
1. Once a student has completed all course prerequisites, they may request an appointment with a counselor or educational advisor.
2. Students who have completed coursework at other colleges must bring the following information to their eligibility appointment:
   a. Official transcripts of all college work completed at all colleges.
   b. If the prerequisite courses were completed at another college, a course description and a copy of the course syllabus.
   c. Students completing college coursework outside of the United States will need to have their transcripts evaluated by an approved international transcript evaluation agency and must bring the final evaluation to their appointment (students may be able to obtain a list of agencies from the Admissions & Records Office).
   d. Due to specific college deadlines for International Student application, please inform the Counseling/Educational Advisor that this applies to you.
   e. All students will need to bring official proof of high school graduation, GED, or college graduation from an accredited institution in the United States.

Students should also be aware that once they have been admitted to the Nursing program and before beginning the clinical portion of the program, they will need to be able to pass both a criminal background check, including a screening by the Office of Inspector General for welfare or Social Security fraud, as well as testing negative for drug use.

All applicants are required to meet the essential functions for success in the Nursing program.

Physical Demands:
- Perform prolonged, extensive, or considerable standing/walking, lifting positioning, pushing, and/or transferring patients
- Possess the ability to perform fine motor movements with hands and fingers
- Possess the ability for extremely heavy effort (lift/carry 50 lbs. or more)
- Perform considerable reaching, stooping, bending, kneeling, and crouching

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

Sensory Demands: (May be corrected with adaptive devices)
- Subject to burns and cuts
- Subject to hazards of flammable, explosive gases
- Subject to burns and cuts
- Subject to patient contact with patients having different religious, culture, ethnicity, race, sexual orientation, psychological and physical disabilities, and under a wide variety of circumstances

- Handle emergency or crisis situations
- Subject to many interruptions
- Requires judgment/action which could result in death of a patient
- Exposed to products containing latex

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

Required Courses: (28.0 Units)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>NURS 4</td>
<td>Maternity Nursing</td>
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</tr>
<tr>
<td>NURS 5</td>
<td>Psychiatric Nursing</td>
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</tr>
<tr>
<td>NURS 6</td>
<td>Pediatric Nursing</td>
<td>3.0</td>
</tr>
<tr>
<td>NURS 7</td>
<td>Medical-Surgical Nursing: Circulation</td>
<td>5.0</td>
</tr>
<tr>
<td>NURS 8</td>
<td>Medical-Surgical Nursing: Circulation</td>
<td>5.0</td>
</tr>
<tr>
<td>NURS 9</td>
<td>Leadership in Nursing</td>
<td>1.0</td>
</tr>
<tr>
<td>NURS 10</td>
<td>Medical-Surgical Nursing: Integration/Regulation</td>
<td>4.0</td>
</tr>
<tr>
<td>NURS 11</td>
<td>Preceptorship in Nursing</td>
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Requirements for the Major:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANAT 35</td>
<td>Human Anatomy</td>
<td>5.0</td>
</tr>
<tr>
<td>ANAT 36</td>
<td>Human Physiology</td>
<td>5.0</td>
</tr>
<tr>
<td>ANAT 10A</td>
<td>Introductory Human Anatomy</td>
<td>4.0</td>
</tr>
<tr>
<td>ANAT 10B</td>
<td>Introductory Human Physiology</td>
<td>4.0</td>
</tr>
<tr>
<td>MICR 1</td>
<td>Principles of Microbiology</td>
<td>5.0</td>
</tr>
<tr>
<td>MICR 22</td>
<td>Microbiology</td>
<td>4.0</td>
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<td>ENGL 1A</td>
<td>Freshman Composition</td>
<td>4.0</td>
</tr>
<tr>
<td>ENGL 1AH</td>
<td>Freshman Composition - Honors</td>
<td>4.0</td>
</tr>
<tr>
<td>CHLD 10</td>
<td>Child Growth and Lifespan Development</td>
<td>3.0</td>
</tr>
<tr>
<td>CHLD 10H</td>
<td>Child Growth and Lifespan Development - Honors</td>
<td>3.0</td>
</tr>
</tbody>
</table>
### Livestock Management

**Natural Sciences Division**  
**Degree S0103**  
This program is designed to give students basic skills in livestock management for employment opportunities on farms, ranches, and agriculture sales and services.

#### Required Courses:
- AGAN 1 Animal Science  
- AGAN 2 Animal Nutrition  
- AGAN 94 Animal Breeding  
- AGLI 14 Swine Production  
- AGLI 17 Sheep Production  
- AGLI 30 Beef Production  
- AGLI 34 Livestock Judging and Selection  
- AGLI 96 Animal Sanitation  
- AGLI 97 Artificial Insemination of Livestock

#### Recommended Electives
- AGLI 99 Agricultural Calculations 3.0

### Manufacturing Technology

**Technology and Health Division**  
**Degree S0918**  
This curriculum is designed to prepare the student for entrance into the manufacturing field in one of its 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 certification 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.

#### Required Courses:
- EDT 16 Basic CAD and Computer Applications 4.0

### Marketing Management

**Business Division**  
**Degree 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.

#### Required Courses:
- BUSA 1 principles of Accounting - Financial  
- BUSA 2 Bookkeeping - Accounting  
- BUSM 20 Principles of Business  
- BUSM 61 Business Organization and Management  
- BUSO 25 Business Communications  
- BUSR 35 Professional Selling  
- BUSR 36 Principles of Marketing  
- BUSR 85 Special Issues in Marketing  
- CBIS 15 Microcomputer Applications

PLUS select one (1) course from:
- BUSC 1A Principles of Economics - Macroeconomics  
- BUSC 1AH Principles of Economics - Macroeconomics - Honors

#### Total Units: 35.0 - 38.0

### Mental Health Technology - Psychiatric Technician

**Technology and Health Division**  
**Degree S1208**  
Completion of coursework leads to an Associate in Science degree. The Psychiatric Technology Program will prepare students to take the California State Licensure Examination for Psychiatric Technicians.

#### Recommended Courses:
- MENT 40 Introduction to Interviewing and Counseling  
- MENT 56 Medical-Surgical Nursing for Psychiatric Technicians  
- MENT 58D Advanced Medical-Surgical Nursing and Pharmacology for PT  
- MENT 56L Medical-Surgical Clinical Experience  
- MENT 70 Introduction to Psychiatric Technology  
- MENT 70L Introduction to Psychiatric Technology Clinical Technicians  
- MENT 72 Nursing Care of the Developmentally Disabled Person  
- MENT 72L Nursing Care of the Developmentally Disabled Person - Clinical  
- MENT 73T Psychiatric Nursing for Psychiatric Technicians Clinical  
- MENT 82 Work Experience in Mental Health Technology  
- MENT 84 Work Experience in Physical Health Technology  
- MENT 89 Work Experience in Mental Health Technology

#### Total Units: 54.0

### Special Information:
Additional general education courses needed for completion of the Degree requirements are listed in the Mt. San Antonio College Catalog, but are not included above.
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) 274-7500, Ext. 4750. All applications are dated upon receipt in the Technology and Health Division Office. A program begins each fall and spring semester.
e) Take the required English Placement Test (AWE). Eligibility for ENGL 68 is advised. If you have already taken a college placement exam within the past two years at another school, arrange to have your test scores forwarded to the Technology and Health Division Office. (If you were tested at Mt. San Antonio College, the office will obtain the test scores as long as an “Application for Admission” is on file with the Admissions and Records Office.) Testing is administered by the Assessment Center, located in the Student Services Center. Arrangements should be made with them to schedule a day and time to take the English Placement Test, if required. The Assessment Center is open Monday through Friday. You may contact them at (909) 274-7500, Ext. 4265.
f) Forward two official transcripts of all coursework completed (high school, nursing school, and other than Mt. San Antonio college courses.) One transcript must be sent to the Technology and Health Division Office and the other to the Admissions and Records Office.
g) For students who possess a college degree, the English Placement Test is not required. However, it will be necessary for a student to obtain two official copies of the college transcript showing the degree issued. One transcript must be sent to the Technology and Health Division Office and the other to the Admissions and Records Office. NOTE: Concerning Entrance Requirements ‘a’ and ‘f’, if the courses were taken and/or the degree obtained at Mt. San Antonio College, it is not necessary to request transcripts. Indicate in the mailing address the program for which your transcript is being sent to the Technology and Health Division Office.
EXAMPLE:
Mt. San Antonio College
Technology and Health Division
Psychiatric Technician Program
1100 North Grand Avenue
Walnut, CA 91789-1399

h) A physical examination, including specific immunizations, and consent/disclaimer for Hepatitis A/B vaccine is required of all candidates prior to beginning classes. Students must provide proof that he/she does not have tuberculosis. These requirements are in accordance with the healthcare agency policy that insure that students are in good health and free from communicable disease and able to perform their training functions. Drug testing may also be required as part of this physical examination. Proof of high school graduation and malpractice insurance are required of all candidates upon acceptance.
i) Certain convictions may prevent a candidate from being licensed as a Psychiatric Technician.
j) All students will be required to pass a background check prior to entering the clinical education phase.

Selection Procedure:
In determining eligibility of an applicant, consideration will be given to satisfactory scores on the English Placement Test. The College will make every effort to notify the applicant of acceptance by mail no less than two months prior to the beginning of a program.

ALL APPLICANTS ARE REQUIRED TO MEET THE ESSENTIAL FUNCTIONS FOR SUCCESS IN THE MENTAL HEALTH TECHNOLOGY - PSYCHIATRIC TECHNICIAN PROGRAM.

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

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

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

Nursing Technology and Health Division
Degree S1203
The Mt. San Antonio College Nursing Program, approved by the California Board of Registered Nursing, is a two-year program designed to prepare men and women to give direct nursing care to clients in various practice settings. The program consists of course work in nursing, science, general education, and clinical nursing practice at local hospitals and health agencies. Graduates of the program receive an Associate in Science Degree in Nursing and are eligible to take the NCLEX-RN examination leading to licensure as a Registered Nurse.

Enrollment in the Mt. San Antonio College Nursing Program — Generic Option — is open to persons regardless of sex, age, marital status, disability, ethnic group, religion or national origin. Applications are accepted twice a year for the Fall and Spring semesters via on-line application process.

Prerequisite courses:
1. Human Anatomy, including a laboratory component, a minimum of four (4) semester units.
2. Human Physiology, including a laboratory component, a minimum of four (4) semester units.
3. Microbiology, including a laboratory component, a minimum of four (4) semester units.
4. English 1A (Writing Composition) minimum of three (3) semester units with a minimum grade of C.
Non-course requirements:
1. An overall grade point average of 2.5 for the Human Anatomy, Human Physiology and Microbiology prerequisite courses with no gradeless than a “C” for each course and no more than one repetition of any of these courses.
2. A cumulative grade point average (GPA) of 2.5 for all college coursework completed.
3. Eligibility for MATH 71 Intermediate Algebra (Preferably MATH 71 or a college level math course completed).
4. High school graduation or GED or academic degree from an accredited college/university in the United States.
5. A physical examination, including specific immunizations is required of all candidates prior to the beginning of nursing classes.
7. Criminal background check and drug screening must be completed prior to any patient contact.

GENERIC (REGISTERED NURSING) OPTION PREREQUISITES TAKEN PRIOR TO ENTRY

The following prerequisites must be completed prior to entering the Generic ADN Option. These courses cannot be in progress.

PROGRAMS OF STUDY LEADING TO AN ASSOCIATE DEGREE

COURSE and TITLE (UNITS)

| ANAT 35 | Human Anatomy | 5.0 |
| ANAT 10A | Introductory Human Anatomy | 4.0 |
| ANAT 36 | Human Physiology | 5.0 |
| ANAT 10B | Introductory Human Physiology | 4.0 |
| MICR 1 | Principles of Microbiology | 5.0 |
| MICR 22 | Microbiology | 4.0 |
| ENGL 1A | Freshman Composition | 4.0 |

or

| CHLD 10 | Child Growth and Lifespan Development | 3.0 |
| CHLD 10H | Child Growth and Lifespan Development - Honors (Must be completed before NURS 6: Pediatric Nursing) | 3.0 |
| PSYC 1A | Introduction to Psychology | 3.0 |
| PSYC 1AH | Introduction to Psychology - Honors (Must be completed before NURS 5: Psychiatric Nursing) | 3.0 |
| SPCH 1A | Public Speaking | 4.0 |
| SPCH 1AH | Public Speaking - Honors | 4.0 |
| SPCH 2 | Fundamentals of Communication | 4.0 |
| SPCH 8 | Professional and Organizational Speaking | 4.0 |
| SPCH 8H | Professional and Organizational Speaking-Honors | 4.0 |

ADDITIONAL GENERAL EDUCATION REQUIRED FOR THE ASSOCIATE DEGREE (These requirements are waived for students who have a Bachelor’s degree or higher from a regionally accredited institution in the United States.)

COURSE and TITLE (UNITS)

| ARTS 1 | One Course from ARTS Area (3.0) |
| HUMANITIES 1 | One Course from HUMANITIES Area (3.0) |

Physical Well-being Requirement Complete at least one of the physical education activity courses with the following prefixes: DNCE, KINA, KINF, KINL, KINS, or KINX (0.5 or 1.0)

Completion of Intermediate Algebra (MATH 71, 71X, or 71B)(Up to 5.0)

Reading competency * See Mt. SAC Catalog for applicable courses

REQUIREMENTS FOR NURSING

Semester 1

Nursing 1A  The Nursing Process I, 5.0 units CSU
Nursing 1B  The Nursing Process II, 5.0 units CSU
Nursing 2 Pharmacology, 2.0 units CSU

Semester 2

Nursing 3 Medical-Surgical Nursing: Locomotion/Sensation/Integument/Oncology/Immunology, 3.5 units CSU
Nursing 4 Maternity Nursing, 3.0 units CSU
Nursing 6 Pediatric Nursing, 3.0 units CSU

Semester 3

Nursing 7 Medical-Surgical Nursing: Nutrition/ Elimination/Surgical Asepsis, 7.0 units CSU
Nursing 5 Psychiatric/Mental Health Nursing, 3.0 units CSU

Semester 4

Nursing 8 Medical-Surgical Nursing: Circulation and Oxygenation, 5.0 units CSU
Nursing 9 Leadership, 1.0 unit CSU
Nursing 10 Medical-Surgical Nursing: Integration/Regulation, 4.0 units CSU
Nursing 11 Preceptorship in Nursing, 2.0 units CSU

Total Units 43.5 units

REQUESTS FOR EQUIVALENCY

Request for equivalency for core sciences: courses must meet or exceed the 4.0 unit minimum with a laboratory component, as required by the California Community College Chancellor’s office. If you are uncertain whether a course taken inside or outside the United States or an accredited institution of higher education in the United States, contact the Nursing Educational Advisor Kathleen Clarke (kclarke@mtsac.edu).

FOREIGN COURSE WORK

Course work completed in another country may be accepted to satisfy requirements for graduation. Foreign transcripts must be evaluated by a recognized foreign evaluation service. If you are selected as a candidate for the Nursing Program, please submit an official, sealed copy of the foreign evaluation during your counseling appointment.

HIGH SCHOOL EDUCATION OR EQUIVALENT

Applicants must provide proof of graduation from:
1. An accredited high school in the United States by transcripts or diploma or;
2. Documentation of a passing score on the General Education Development (GED) exam or;
3. Associate degree, or Baccalaureate degree from an accredited institution of higher education in the United States or;
4. Official evaluation of international diploma/degree

OTHER PROGRAM REQUIREMENTS

1. Meet the minimum physical and mental qualifications to perform essential nursing functions (see Essential Functions).
2. Criminal background check and drug screening must be completed prior to any patient contact.
3. A physical examination, including specific immunization is required of all candidates prior to the beginning of nursing classes.

REQUIREMENTS FOR THE ASSOCIATE DEGREE

Students must develop an education plan with a counselor or educational advisor to complete college academic requirements for the AS degree. Contact the Counseling Department at (909) 274-4380 to schedule an appointment.

REGARDING LICENSURE

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

STEPS FOR APPLYING TO THE ASSOCIATE DEGREE IN NURSING (ADN) GENERIC PROGRAM

The application filing period does not begin until the announced application period. Two application periods in a year for enrollment of the Fall and Spring semesters. Applicants can prepare for the filing period by following the seven steps below.
1. Get a Mt. SAC ID number (if you don’t already have one.) To do this, go to http://www.mtsac.edu/apply/(Apply to Mt. SAC Now!). This can take up to
two weeks to process. You need a Mt. SAC ID number in order to apply to the RN program. If you are a current or returning student and already have an ID number you do not need to apply again.

2. Prerequisites and general education requirements. Prerequisites must be completed prior to applying to the Nursing Program. Due to the intensity of the Nursing Program, it is highly recommended that all general education requirements also be completed prior to entry.

3. Review the multi-criteria screening process grid. This will help you determine your eligibility to enter the Nursing Program at Mt. SAC.

4. Take the HESI A2 Assessment Test. Students who have taken the HESI at any location other than Mt. SAC can contact Elsevier Customer Services to request that their official HESI A2 results be sent directly to Mt. SAC’s Nursing Program.

5. Gather ALL required documents. Using the multi-criteria screening form, compile all required supporting documentation. Documents need to be in PDF format or you may use an iPhone/iPad to upload pictures of documents.

6. Apply online during the open application filing period. The online link will only be available during the application period. Please check on-line at http://www.mtsac.edu/nursing for the application period. Applications will only be accepted during this time frame. You will need to upload your supporting documentation. Before submitting your application, you must review all uploaded documents to verify that the documents are legible and clear. Unreadable or inaccurate documents will result in the rejection of your application.

7. Counseling Appointment: If you are selected as a candidate for the Nursing Program, you will need to make an appointment with a designated Nursing Educational Advisor or Counselor. During this appointment you will need to bring your official sealed transcripts for review.

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, pushing, and transferring patients
- Possess the ability to perform fine motor movements with hands and fingers
- Perform considerable reaching, stooping, bending, kneeling, and crawling

Sensory Demands: (May be corrected with adaptive devices)
- Color vision: ability to distinguish and identify colors
- Depth perception: ability to judge distance and space relationships
- 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

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.

Required Courses

Required Nursing Courses: (43.5 units)

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

Required Prerequisite Courses for the Major:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANAT 35</td>
<td>Human Anatomy</td>
<td>5.0</td>
</tr>
<tr>
<td>ANAT 36</td>
<td>Human Physiology</td>
<td>5.0</td>
</tr>
<tr>
<td>ANAT 108</td>
<td>Introductory Human Physiology</td>
<td>4.0</td>
</tr>
<tr>
<td>ANAT 10A</td>
<td>Introductory Human Anatomy</td>
<td>4.0</td>
</tr>
<tr>
<td>MICR 1</td>
<td>Principles of Microbiology</td>
<td>5.0</td>
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<td>MICR 22</td>
<td>Microbiology</td>
<td>4.0</td>
</tr>
<tr>
<td>ENGL 1A</td>
<td>Freshman Composition</td>
<td>4.0</td>
</tr>
<tr>
<td>ENGL 1AH</td>
<td>Freshman Composition - Honors</td>
<td>4.0</td>
</tr>
</tbody>
</table>

Other General Education Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHLD 10</td>
<td>Child Growth and Lifespan Development</td>
<td>3.0</td>
</tr>
<tr>
<td>CHLD 10H</td>
<td>Child Growth and Lifespan Development - Honors</td>
<td>3.0</td>
</tr>
<tr>
<td>PSYC 14</td>
<td>Developmental Psychology</td>
<td>3.0</td>
</tr>
<tr>
<td>PSYC 1A</td>
<td>Introduction to Psychology</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Additional Notations

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

NOTE: Applicants planning to continue their education and enter a baccalaureate program in Nursing will need to meet with a counselor or educational adviser to discuss transferability of courses. Requirements for the Associate degree

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

Questions regarding equivalent course work from other colleges should be addressed with Counseling and Advising Services.

Ornamental Horticulture

Natural Sciences Division

Degree S0119

The courses in ornamental horticulture are designed to enable students to prepare for exciting careers in the essential and diverse horticulture profession. Careers in nursery management, retail garden centers, landscape design, installation and maintenance, arboretum and botanical gardens, arboriculture, interior landscaping, education, and research are just some of...
Programs of Study Leading to an Associate Degree

the options.
This degree is part of our comprehensive agricultural sciences program. Our program is unique in that most courses provide hands-on experience and are designed to give the student combination of practical skills and technical knowledge. Students who intend to transfer should meet with a counselor or advisor to check the lower division requirements in the catalog of the college or university which they will attend and also the semester and year in which courses are offered.

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

Required Courses:
- AGOR 35 Ornamental Plants 3.0
- AGOR 15 Interior Landscaping 3.0

PLUS select six (6) Units from:
- AGOR 91 Work Experience in Nursery Operations 1.0

or
- AGOR 71 Landscape Construction Fundamentals 3.0
- AGOR 72 Landscape Hardscape Applications 3.0
- AGOR 75 Urban Arboriculture 3.0
- CISB 15 Microcomputer Applications 3.5

Total Units 43.0 - 46.0

Paralegal/Legal Assistant
Business Division
Degree S0310

The paralegal program is intended to prepare students for employment as paralegals in both private and public sectors following graduation. The American Bar Association (ABA) By-Laws Section 21.12 uses the terms paralegal and legal assistant interchangeably referring to persons who, although not members of the legal profession, are qualified through education, training, or work experience and are employed or retained by a lawyer, law office, governmental agency, or other entity in a capacity or function which involves the performance, under the direction and supervision of an attorney, of specifically delegated substantive legal work. Paralegals/legal assistants must comply with the legal restrictions in the practice of law by nonlawyer. The California Business & Professions Code, Section 6450 et seq, governs paralegals in California.

Required Courses:
- AGOR 40 Sports Turf Management 3.0
- AGOR 51 Tractor and Landscape Equipment Operations 3.0
- AGOR 53 Small Engine Repair I 3.0
- AGOR 63 Landscape Irrigation Systems Management 3.0
- AGOR 72 Landscape Hardscape Applications 3.0
- AGOR 75 Urban Arboriculture 3.0
- CISB 15 Microcomputer Applications 3.5

Total Units 43.0 - 46.0

Park and Sports Turf Management
Natural Sciences Division
Degree S0116

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

This program is intended to prepare students to manage a park or sports facility and also for employment following graduation. Students will learn how to design, install and manage irrigation systems, set up and implement fertilizer and pest management programs, design and properly install a complete landscape (including all plants and hardcape), and properly identify and maintain trees, shrubs and turf grasses. In addition, students will learn about personnel management, budgeting and other management topics. Required Courses:
- PLGL 41 Property Law 3.0
- PLGL 42 Family Law 3.0
- PLGL 43 Wills and Trusts 3.0
- PLGL 44 Bankruptcy Law 3.0
- PLGL 45 Creditors’ Rights 3.0
- PLGL 48 Criminal Law and Procedures 3.0
- PLGL 49 Evidence Law 3.0
- PLGL 50 Comparative Law 3.0
- BUSL 18 Business Law 3.0

or
- BUSL 18H Business Law - Honors 3.0
- BUSL 19 Advanced Business Law 3.0
- BUSL 20 International Business Law 3.0

Total Units 35.0

Pet Science
Natural Sciences Division
Degree S0104

The program of courses in Agriculture is designed to enable students to prepare for a career in this essential and diverse profession. The Department offers a comprehensive Agricultural Sciences Program and is unique in that most courses provide hands-on experience designed to give the student a combination of practical skills and technical knowledge. The following programs list all courses needed to satisfy major requirements. Students may obtain certificates upon completion of required courses listed. It is recommended that all students consult with the department chairperson, counselor or advisor to file an educational plan.

These programs are intended to prepare students for employment following graduation. Students desiring a bachelor’s degree should consult with the department chairperson, counselor or advisor to discuss transferabil-
Photography
Arts Division
Degree S1002
This program is designed to prepare the student for employment in the field of photography. A variety of career opportunities are available in photography, art, cinema, communications, industrial arts, graphics, and journalism. Students desiring a bachelor’s degree should consult with a counselor or advisor to catalog of the institution they wish to attend regarding transferability of courses.

Required Courses:
AGAN 1 Animal Science 3.0
AGAN 2 Animal Nutrition 3.0
AGAN 51 Animal Handling and Restraint 3.0
AGAN 94 Animal Breeding 3.0
AGL 96 Animal Sanitation and Disease Control 3.0
AGPE 70 Pet Shop Management 3.0
AGPE 71 Canine Management 3.0
AGPE 72 Feline Management 3.0
AGPE 73 Tropical and Coldwater Fish Management 2.0
AGPE 74 Reptile Management 2.0
AGPE 76 Aviculture - Cage and Aviary Birds 3.0
Total Units 31.0

Photography
Kinesiology, Athletics and Dance Division
Degree S0806
This program is designed to prepare students for employment in the field of Physical Education. Students desiring a bachelor’s degree in the field of Physical Education. Students desiring a bachelor’s degree should consult with a counselor or advisor to file an educational plan and to discuss transferability.

Required Courses:
PHOT 1A Laboratory Studies: Beginning Black and White Photography 1.0
PHOT 1B Laboratory Studies: Advanced Black and White Photography 1.0
PHOT 1C Laboratory Studies: Studio Photography 1.0
PHOT 1D Laboratory Studies: Computer Applications in Photography 1.0
PHOT 9 Digital Image Editing for Photographers 3.0
ARTC 100 Graphic Design I 3.0
PHOT 10 Basic Digital and Film Photography 3.0
PHOT 11 Intermediate Photography 4.0
PHOT 14 Commercial Lighting 3.0
PHOT 15 History of Photography 3.0
PHOT 16 Fashion Photography 3.0
PHOT 18 Portraiture and Wedding Photography 3.0
PHOT 24 Advanced Digital Image Editing for Photographers 3.0
PHOT 28 Photography Portfolio Development 3.0
ARTC 290 Portfolio 3.0
PHOT 29 Studio Business Practices for Commercial Artists 3.0
PHOT 30 Advertising Photography 3.0
PHOT 17 Photocommunication 3.0
PHOT 26 Video for Photographers 3.0
Total Units 38.0

Recommended Electives:
AHIS 1 Understanding the Visual Arts 3.0
ARTB 1 Understanding the Visual Arts 3.0

Physical Education
Kinesiology, Athletics and Dance Division
Degree S0806
This program is designed to prepare students for employment in the field of Physical Education. Students desiring a bachelor’s degree should consult with a counselor or advisor to file an educational plan and to discuss transferability.

Required Courses:
ANAT 35 Human Anatomy 5.0
ANAT 36 Human Physiology 5.0

Psychiatric Technician to RN
Technology and Health Division
Degree S1209
The Mt. San Antonio College Nursing Program, approved by the California Board of Registered Nursing, is a two-year program designed to prepare men and women to give direct nursing care to clients in various practice settings. The program consists of course work in nursing, science, general education, and clinical nursing practice at local hospitals and health agencies. Graduates of the program receive an Associate in Science Degree in Nursing and are eligible to take the NCLEX-RN examination leading to licensure as a Registered Nurse.

Prerequisite Courses:
1. Human Anatomy, including a laboratory component, a minimum of four (4) semester units.
2. Human Physiology, including a laboratory component, a minimum of four (4) semester units.
3. Microbiology, including a laboratory component, a minimum of four (4) semester units.
4. English 1A (Writing Composition) minimum of three (3) semester units with a minimum grade of C.
5. PSYC 1A (Introduction to Psychology), minimum of three (3) semester units
6. CHLD 10 (Child Growth & Lifespan Development) or PSYC 14 (Developmental Psychology), minimum of three (3) semester units

Programs of Study Leading to an Associate Degree

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 71 Intermediate Algebra (Preferably MATH 71 or a college level math course completed).
4. High school graduation or GED or academic degree from an accredited college/university in the United States.
5. Possess a current, active California Psychiatric Technician 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 all candidates prior to the beginning of nursing classes.
8. Current Healthcare 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 6: Pediatric Nursing.

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 71 Intermediate Algebra (Preferably MATH 71 or a college level math course completed)
4. High school graduation or GED or academic degree from an accredited college/university in the United States.
5. Possess a current, active California Psychiatric Technician 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 all candidates prior to the beginning of nursing classes.
8. Current Healthcare 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 6: Pediatric Nursing.
Programs of Study Leading to an Associate Degree

provide proof of current Psychiatric Technician License, physical, CPR card, Background Check, and drug testing prior to the start of class.)

Required Courses:

Requirements for Nursing: (28.5 Units)

Semester 1

Nursing 3 Medical-Surgical Nursing: Locomotion/Sensation/Integument/Oncology/Immunology, 3.5 units CSU
Nursing 4 Maternity Nursing, 3.0 units CSU
Nursing 6 Pediatric Nursing, 3.0 units CSU

Semester 2

Nursing 7 Medical-Surgical Nursing: Nutrition/Elimination/Surgical Asepsis, 7.0 units CSU

Semester 3

Nursing 8 Medical-Surgical Nursing: Circulation and Oxygenation, 5.0 units CSU
Nursing 9 Leadership, 1.0 unit CSU
Nursing 10 Medical-Surgical Nursing: Integration/Regulation, 4.0 units CSU
Nursing 11 Preceptorship in Nursing, 2.0 units CSU

Total Units 28.5 units

REQUIREMENT FOR THE MAJOR (or Equivalent)

ANAT 35 Human Anatomy, 5.0 CSU, UC and
ANAT 36 Human Physiology, 5.0 CSU, UC or
ANAT 10A Introductory Human Anatomy, 4.0 CSU, UC and
ANAT 10B Introductory Human Physiology, 4.0 CSU, UC
MICR 1 Principles of Microbiology, 5.0 CSU, UC or
MICR 22 Microbiology, 4.0 CSU, UC
ENGL 1A Freshman Composition, 3.0 CSU, UC
CHLD 10 Child Growth and Development, 3.0 CSU, UC
PSYC 14 Developmental Psychology, 3.0 CSU, UC
SPCH 1A Public Speaking, 4.0 CSU, UC or
SPCH 2 Fundamental of Communication, 4.0 CSU, UC or
SPCH 8 Professional and Organizational Speaking, 4.0 CSU, UC

Total Units 24.0 - 27.0

NOTE: Applicants planning to continue their education shall meet with a counselor or educational advisor to discuss transferability of courses.

Requirements for the Associate degree

Students must develop an education plan with a counselor or educational advisor to complete college academic requirements for the A.S. degree. Contact the Counseling Department at (909) 274-4380 to schedule an appointment.

Selection Process

Students applying for admission to the Nursing Program are required to see either a counselor or educational advisor to verify their eligibility to enter the Nursing program.

Procedure:

1. 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 and the Admission Assessment Test has been passed, students will enter on a first come first served basis.

The eligibility appointment:

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

2. Students who have completed coursework at other colleges must bring the following information to their eligibility appointment:
   a. Official transcripts of all college work completed at all colleges.
   b. If the prerequisite courses were completed at another college, a course description and a copy of the course syllabus.
   c. Students completing college coursework outside of the United States will need to have their transcripts evaluated by an approved international transcript evaluation agency and must bring the final evaluation to their appointment (students may be able to obtain a list of agencies from the Admissions & Records Office). d. Due to specific college deadlines for International Student application, please inform the Counseling/Educational Advisor that this applies to you.
   e. All students will need to bring official proof of high school graduation, GED, or college graduation from an accredited institution in the United States. Students should also be aware that once they have been admitted to the Nursing Program and before beginning the clinical portion of the Program, they will need to be able to pass both a criminal background check, including a screening by the Office of Inspector General for Welfare or Social Security fraud, as well as testing negative for drug use.

All Applicants are required to meet the essential functions for success in the Nursing Program.

Physical Demands:

- Perform prolonged, extensive, or considerable standing/walking, lifting positioning, pushing, and/or transferring patients
- Possess the ability to perform fine motor movements with hands and fingers
- Possess the ability for extremely heavy effort (lift/carry 50 lbs. or more)
- Perform considerable reaching, stooping, bending, kneeling, and crouching

Sensory Demands: (May be corrected with adaptive devices)

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

Working Environment:

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

- Handle emergency or crisis situations
- Subject to many interruptions
- Requires judgment/action which could result in death of a patient
- Exposed to products containing latex

English Language Skills:

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

Required Courses

Requirements for Nursing: (28.5 units)

NURS 3 Medical-Surgical Nursing: 3.5
   Locomotion/Sensory/Integ./Oncology/Imm.
NURS 4 Maternity Nursing: 3.0
NURS 6 Pediatric Nursing: 3.0
NURS 7 Medical-Surgical Nursing: 7.0
NURS 8 Medical-Surgical Nursing: 5.0
   Circulation and Oxygenation
NURS 9 Leadership in Nursing: 1.0
NURS 10 Medical-Surgical Nursing: 4.0
   Integration/Regulation
NURS 11 Preceptorship in Nursing: 2.0
   and

Requirements for the Major:

ANAT 35 Human Anatomy: 5.0
ANAT 36 Human Physiology: 5.0
   or
ANAT 10A Introductory Human Anatomy: 4.0
ANAT 10B Introductory Human Physiology: 4.0
   and
MICR 1 Principles of Microbiology: 5.0
   or
MICR 22 Microbiology: 4.0
   and
ENGL 1A Freshman Composition: 4.0
   or
ENGL 1AH Freshman Composition - Honors: 4.0
   and
CHLD 10 Child Growth and Lifespan Development: 3.0
Radio Broadcasting: Behind the Scenes

Arts Division
Degree S0606

The Radio Broadcasting Behind-the-Scenes degree is designed for students who are interested in the non-performance side of the broadcasting industry. Instruction prepares students for entry-level jobs in production, promotion, and management.

Required Courses:
- R-TV 10 Introduction to Electronic Media 3.0
- R-TV 09 Broadcast Sales and Promotion 3.0
- R-TV 10 Radio Programming and Producer Techniques 3.0
- R-TV 11A Beginning Radio Production 3.0
- R-TV 11B Advanced Radio Production 3.0
- R-TV 15 Broadcast Law and Business Practices 3.0
- R-TV 96A Campus Radio Station Lab: Studio 1.0
- R-TV 96B Campus Radio Station Lab: Disc Jockey 1.0
- R-TV 96C Campus Radio Station Lab: Hosting and Management Skills 1.0
- R-TV 97A Radio/Entertainment Industry Seminar 1.0
- R-TV 97B Radio/Entertainment Industry Work Experience 1.0
- R-TV 05 Radio-TV Newswriting 3.0
- R-TV 06 Broadcast Traffic Reporting 1.5
- R-TV 17 Internet Radio and Podcasting 3.0
- R-TV 31 History of Radio DJs 3.0
- R-TV 32 Radio - TV Internet Applications 3.0
- R-TV 35 Pop Culture in the Media 3.0
- R-TV 99 Radio/TV Special Projects 2.0
- R-TV 101 Work Experience in Broadcast Entertainment 1.0

Total Units 29.0

Radio Broadcasting: On the Air

Arts Division
Degree S0605

The Radio Broadcasting On-The-Air degree is designed to prepare students for an entry-level job in 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 courses.

Required Courses:
- R-TV 05 Radio-TV Newswriting 3.0
- R-TV 06 Broadcast Traffic Reporting 1.5
- R-TV 17 Internet Radio and Podcasting 3.0
- R-TV 31 History of Radio DJs 3.0
- R-TV 32 Radio - TV Internet Applications 3.0
- R-TV 35 Pop Culture in the Media 3.0
- R-TV 99 Radio/TV Special Projects 2.0
- R-TV 101 Work Experience in Broadcast Entertainment 1.0

Total Units 29.0

Radiologic Technology

Technology and Health Division
Degree S1206

The Radiologic Technology program, which is accredited by the Joint Review Committee on Education in Radiologic Technology (JRCERT), is designed to prepare students to function as certified radiologic technologists. Students will gain knowledge and understanding of the diagnostic uses of x-ray, as well as the technical skills to use x-ray equipment in both laboratory and clinical settings. The courses are developed to enable students to operate x-ray equipment, assist in the diagnosis of disease, and to observe proper medical ethics. Students will learn the nature of radiation, the principles of electricity, the structure of x-ray machines, and the operation of a clinical x-ray department.

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

Upon completion of the Associate in Sciences degree in Radiologic Technology, graduates are eligible to apply for the registry examination through the American Registry of Radiologic Technologist and the California Certification of Radiologic Technology. This is a licensed profession, and a valid Social Security number is required to obtain state certification and national licensure.

Required Courses:
- RAD 91 Patient Care in Radiologic Sciences 3.0
- RAD 62C Radiographic Procedures II Laboratory 1.5
- RAD 62B Radiographic Procedures II 3.0
- RAD 62A Theory of Radiologic Science 4.0
- RAD 50 Introduction to Radiologic Science and Health Care 3.0
- RAD 61A Theory of Radiologic Technology 4.0
- RAD 61B Radiographic Procedures I 3.0
- RAD 61C Radiographic Procedures I Laboratory 1.5
- RAD 61B Theory of Radiologic Technology 4.0
- RAD 62B Radiographic Procedures II 3.0
- RAD 62C Radiographic Procedures II Laboratory 1.5
- RAD 63 Theory of Radiologic Technology 4.0
- RAD 64 Theory of Radiologic Technology 4.0
- RAD 91 Patient Care in Radiologic Sciences 3.0

Total Units 78.0
Programs of Study Leading to an Associate Degree

should be made with the Service Center to Schedule a date and time to take the college placement examination if required. The Assessment Center is open Monday through Friday. You may contact them at (909) 274-7500 ext. 4265. For students who possess a college degree, the English placement test is not required, however, it will be necessary for a student to obtain two official copies of the college transcript showing the degree issued. One official transcript must be sent to Technology and Health Division Office and the other to Admission and Records. If the courses were taken and / or the degree obtained at Mt. San Antonio College, it is not necessary to request transcripts. Request the transcript for the Division Office be addressed as follows: Mt. San Antonio College Technology and Health Division Radiologic Technology Program 1100 North Grand Avenue Walnut CA 91789-1299

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

d) Submit an application for the Radiologic Technology Program to the Technology and Health Division Office (909) 274-7500 ext. 4750. All applications are dated upon receipt in the Technology and Health Division Office. A program begins each summer intercession.

e) Applicant must be 18 years of age upon entrance into the program.

f) High school graduate or equivalent. Please provide copy of diploma as proof of high school completion.

g) Possess a valid Social Security Card. This is a licensed profession, and a valid Social Security Number is required to obtain state certification and national licensure.

h) Complete all AS degree General Education requirements to include program prerequisites listed below (i) before admission to the program. Students are required to make an appointment with an educational advisor to review general education requirements for graduation.

i) Complete the following prerequisite courses with a minimum grade of “C” in each course. Students must complete prerequisite courses before admission to the program. Students may seek variances for courses completed at other institutions. Course must be an equivalent course or higher to the courses listed below and transcripts/course outlines must be reviewed by the Department Chair of the appropriate department to seek approval.

1. ANAT 10A Introductory Human Anatomy or ANAT 35 Human Anatomy
2. ANAT 10B Introductory Human Physiology or ANAT 36 Human Physiology
3. PHYS 1 Physics
4. MEDI 90 Medical Terminology

Acceptance Requirements:

a) 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.

b) A physical examination, including certain immunization and drug testing is required as part of the physical examination for all radiologic technology students before entrance into the clinical setting. Forms and information will be provided at time of orientation.

c) All students will be required to pass a criminal background check prior to entering the clinical education phase (a valid Social Security number is required to complete this process.)

Selection Procedure:

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

Program Completion Requirements:

a) All students entering the Radiologic Technology Program MUST complete all the major course requirements and the general education requirements necessary to complete the Associate degree before a certificate documenting completion in Radiologic Technology will be given. This certificate will permit the student to apply for the registry exam through the American Registry of Radiologic Technologist and the California Certification of Radiologic Technology.

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

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

Working Environment:

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

- Handle emergency or crisis situations
- Subject to many interruptions
- Requires decisions/actions critical to patient safety
- Exposed to products containing latex

Required Skills and Physical Abilities:

In order to ensure student and patient safety and welfare, the radiologic technology student must have sufficient strength, motor coordination, manual dexterity, intellectual capacity, and sensory functions to be able to:

a) Transport, move, lift, or transfer patients from a wheelchair or gurney to an x-ray table or to a patient bed.

b) Lift arms above the head to move the x-ray tube assembly.

c) Move, adjust, and manipulate portable and fluoroscopic equipment according to established procedures and standards of speed and accuracy while conducting radiographic examinations.

d) Maneuver well enough to physically protect himself or herself from injury caused by patients exhibiting aggressive behaviors.

e) Physically place patients in the proper positions for the examination according to established procedures and standards of speed and accuracy.

f) Rapidly respond to situations involving the health and safety of patients, providing physical and emotional support to the patient during radiographic procedures, providing basic first aid and emergency care in the absence of or until a physician arrives.

g) Function adequately under stressful situations related to technical and procedural standards of patient care situations.

h) Hear well enough (average 30 decibels for both ears) to respond to directions or calls for help from individuals remote from the location of the student.

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

j) Calculate and select proper technical exposure factors according to the individual needs of the patient’s condition and requirements of the procedure with speed and accuracy.

k) View and evaluate the recorded images of a radiograph for the purpose of identifying proper patient positioning, accurate procedural sequencing, proper exposure (and/or “S” number), and other established technical qualities.

English Language Skills:

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

**Business Division**

**Degree S0512**

This program prepares students for employment following graduation. Students wishing a bachelor's degree (transfer program) should consult with a counselor or advisor to discuss transferability of courses. The requirements for a degree in real estate include the eight classes needed prior to applying to take the Real Estate Broker License Exam as well as several or additional classes designed to strengthen the skills needed to succeed in a career in real estate.

#### Required Courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUSR 50</td>
<td>Real Estate Principles</td>
<td>3.0</td>
</tr>
<tr>
<td>BUSR 51</td>
<td>Legal Aspects of Real Estate</td>
<td>3.0</td>
</tr>
<tr>
<td>BUSR 52</td>
<td>Real Estate Practice</td>
<td>3.0</td>
</tr>
<tr>
<td>BUSR 52D</td>
<td>Real Estate Practice Work Experience</td>
<td>3.0</td>
</tr>
<tr>
<td>BUSR 53</td>
<td>Real Estate Finance</td>
<td>3.0</td>
</tr>
<tr>
<td>BUSR 55</td>
<td>Real Estate Economics</td>
<td>3.0</td>
</tr>
<tr>
<td>BUSR 81</td>
<td>Appraisal: Principles and Procedures</td>
<td>3.5</td>
</tr>
<tr>
<td>CISR 15</td>
<td>Microcomputer Applications</td>
<td>3.5</td>
</tr>
</tbody>
</table>

PLUS Group A Select two (2), three (3) or four (4) courses from:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUSR 57</td>
<td>Income Tax Aspects of Real Estate</td>
<td>3.0</td>
</tr>
<tr>
<td>BUSR 59</td>
<td>Real Estate Property Management</td>
<td>3.0</td>
</tr>
<tr>
<td>BUSR 60</td>
<td>Real Estate Investment Planning</td>
<td>3.0</td>
</tr>
<tr>
<td>BUSR 62</td>
<td>Mortgage Loan Brokering and Lending</td>
<td>3.0</td>
</tr>
<tr>
<td>BUSR 76</td>
<td>Escrow Procedures I</td>
<td>3.0</td>
</tr>
</tbody>
</table>

PLUS Group B Select zero (0), one (1) or two (2) courses from:

<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 11</td>
<td>Fundamentals of Accounting</td>
<td>3.0</td>
</tr>
<tr>
<td>BUSA 72</td>
<td>Bookkeeping - Accounting</td>
<td>5.0</td>
</tr>
<tr>
<td>BUSL 18</td>
<td>Business Law</td>
<td>3.0</td>
</tr>
<tr>
<td>BUSL 18H</td>
<td>Business Law – Honors</td>
<td>3.0</td>
</tr>
<tr>
<td>BUSM 20</td>
<td>Principles of Business</td>
<td>3.0</td>
</tr>
<tr>
<td>BUMS 60</td>
<td>Human Relations in Business</td>
<td>3.0</td>
</tr>
<tr>
<td>BUMS 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>BUSO 25</td>
<td>Business Communications</td>
<td>3.0</td>
</tr>
<tr>
<td>BUSO 26</td>
<td>Oral Communications for Business</td>
<td>3.0</td>
</tr>
<tr>
<td>BUSS 35</td>
<td>Professional Selling</td>
<td>3.0</td>
</tr>
<tr>
<td>BUSS 36</td>
<td>Principles of Marketing</td>
<td>3.0</td>
</tr>
<tr>
<td>PSYC 1A</td>
<td>Introduction to Psychology</td>
<td>3.0</td>
</tr>
<tr>
<td>PSYC 1AH</td>
<td>Introduction to Psychology - Honors</td>
<td>3.0</td>
</tr>
</tbody>
</table>

**Total Units** 28.0 - 44.0

#### Registered Veterinary Technology

**Natural Sciences Division**

**Degree S0105**

The Registered Veterinary Technology Program, which is accredited by the American Veterinary Medical Association, 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.

#### Required Courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUSL 18H</td>
<td>Business Law – Honors</td>
<td>3.0</td>
</tr>
<tr>
<td>BUSM 20</td>
<td>Principles of Business</td>
<td>3.0</td>
</tr>
<tr>
<td>BUMS 60</td>
<td>Human Relations in Business</td>
<td>3.0</td>
</tr>
<tr>
<td>BUMS 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>BUSO 25</td>
<td>Business Communications</td>
<td>3.0</td>
</tr>
<tr>
<td>BUSO 26</td>
<td>Oral Communications for Business</td>
<td>3.0</td>
</tr>
<tr>
<td>BUSS 35</td>
<td>Professional Selling</td>
<td>3.0</td>
</tr>
<tr>
<td>BUSS 36</td>
<td>Principles of Marketing</td>
<td>3.0</td>
</tr>
<tr>
<td>PSYC 1A</td>
<td>Introduction to Psychology</td>
<td>3.0</td>
</tr>
</tbody>
</table>

#### Required Electives:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUSL 18H</td>
<td>Business Law – Honors</td>
<td>3.0</td>
</tr>
<tr>
<td>BUSM 20</td>
<td>Principles of Business</td>
<td>3.0</td>
</tr>
<tr>
<td>BUMS 60</td>
<td>Human Relations in Business</td>
<td>3.0</td>
</tr>
<tr>
<td>BUMS 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>BUSO 25</td>
<td>Business Communications</td>
<td>3.0</td>
</tr>
</tbody>
</table>

#### Total Units 28.0 - 44.0

**Respiratory Therapy**

**Technology and Health Division**

**Degree S1205**

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

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

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

Some mechanical aptitude and the ability to perform fine motor movements with hands and fingers is required in learning the operation of specialized equipment. This includes diagnostic apparatus which aids the physician in detecting cardiorespiratory diseases.

#### Required Courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>RESD 50</td>
<td>Theory and Principles</td>
<td>2.0</td>
</tr>
<tr>
<td>RESD 51A</td>
<td>Respiratory Therapy Science</td>
<td>4.0</td>
</tr>
<tr>
<td>RESD 51B</td>
<td>Respiratory Therapy Science</td>
<td>4.0</td>
</tr>
<tr>
<td>RESD 52</td>
<td>Pulmonary Anatomy and Physiology</td>
<td>3.0</td>
</tr>
<tr>
<td>RESD 53</td>
<td>Cardiopulmonary Pathophysiology</td>
<td>3.0</td>
</tr>
<tr>
<td>RESD 55</td>
<td>Adult Respiratory Intensive Care</td>
<td>3.0</td>
</tr>
<tr>
<td>RESD 56A</td>
<td>Techniques of Respiratory Therapy</td>
<td>2.5</td>
</tr>
<tr>
<td>RESD 56B</td>
<td>Techniques of Respiratory Therapy</td>
<td>6.0</td>
</tr>
<tr>
<td>RESD 56C</td>
<td>Techniques of Respiratory Therapy</td>
<td>2.5</td>
</tr>
<tr>
<td>RESD 56D</td>
<td>Techniques of Respiratory Therapy</td>
<td>6.0</td>
</tr>
<tr>
<td>RESD 57A</td>
<td>Special Procedures for Respiratory Care</td>
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</tr>
<tr>
<td>RESD 57B</td>
<td>Special Procedures for Respiratory Care</td>
<td>1.5</td>
</tr>
<tr>
<td>RESD 58</td>
<td>Neonatal Intensive Care</td>
<td>3.0</td>
</tr>
<tr>
<td>RESD 59</td>
<td>Respiratory Therapeutic Modalities</td>
<td>3.0</td>
</tr>
<tr>
<td>RESD 60</td>
<td>Comprehensive Pulmonary Assessment</td>
<td>2.0</td>
</tr>
<tr>
<td>RESD 61</td>
<td>Current Issues in Respiratory Care</td>
<td>3.0</td>
</tr>
<tr>
<td>RESD 62</td>
<td>Pharmacology for Respiratory Care</td>
<td>1.5</td>
</tr>
</tbody>
</table>

#### Total Units 51.5

#### Entrance Requirements:

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

1) Applicants must be at least 18 years of age upon entrance into the program and must be
Programs of Study Leading to an Associate Degree

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

Other Requirements:
RESD 50 pre-requisites ANAT 10A/B, CHEM 10, MATH 51 and MEDI 90 must be completed prior to entering the program.

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

Physical Demands:
• Perform prolonged, extensive, or considerable standing/walking, lifting, positioning, pushing, and/or transferring patients
• Possess the ability to perform fine motor movements with hands and fingers
• Possess the ability for extremely heavy effort (lift and carry at least 50 pounds or more)
• Perform considerable reaching, stooping, bending, kneeling, and crouching

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

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

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

Special Information
The completion of the Respiratory Therapy Program and receipt of a certificate documenting completion of required courses requires completion of the Associate degree. The student may elect to pursue either the Associate in Science or Associate in Arts degree. All students entering the program must submit an educational plan showing the major course requirements for the degree.

To remain in the program, students must maintain a “C” or better grad in all courses. Upon completion of the Respiratory Therapy requirements, the student is given a certificate documenting completion. This certification will permit the student to sit for all National Board for Respiratory Care (NBRC), Incorporated, examinations.

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

Sign Language/Interpreting

Humanities and Social Sciences Division
Degree 50801
The Mt. San Antonio College Interpreter Training Program is designed to prepare individuals for careers as Sign Language Interpreters. Interpreters are needed wherever communication happens between the hearing community and the Deaf and hard-of-hearing community. There are an endless number of settings in which this communication takes place. Interpreters are employed by school districts, cruise ship companies, corporations, government agencies, hospitals, colleges and universities, and a vast number of other organizations and private businesses.

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

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

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

**Small Business Management**  
**Business Division**  
**Degree S0508**  
This program is intended to prepare students for employment following graduation. Students wishing a bachelor's degree (transfer program) should consult with a counselor or advisor to discuss transferability of courses.

**Required Courses:**
- **SIGN 105** American Sign Language 5  
- **SIGN 108** Fingerspelling  
- **SIGN 201** Introduction to Deaf Studies  
- **SIGN 202** American Deaf Culture  
- **SIGN 210** American Sign Language Structure  
- **SIGN 220** Translation: American Sign Language/English  
- **SIGN 223** Principles of Interpreting  
- **SIGN 225** Ethical Decision Making for Interpreters  
- **SIGN 227** Cognitive Processing for Interpreters  
- **SIGN 231** Interpreting  
- **SIGN 232** Advanced Interpreting  
- **SIGN 239** Applied Interpreting  

**Required Electives**
- Select three (3) courses from: (5-5.5 Units)
  - **SIGN 240** Vocabulary Building for Interpreters  
  - **SIGN 250** Interpreting with Classifiers  
  - **SIGN 260** Video Interpreting  
  - **SIGN 299** Special Projects in Sign Language/Interpreting

**Total Units** 42.0 - 42.5

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**Television Production**  
**Arts Division**  
**Degree S0602**  
The Associate in Science degree in Television Production is designed to prepare students for entry-level jobs in the Television industry in a variety of areas including narrative, remote and studio production, writing, preproduction, editing, and finance.

**Required Courses:**
- **R-TV 01** Introduction to Electronic Media  
- **R-TV 14** Media Aesthetics  
- **R-TV 28** Introduction to Writing for Electronic Media  
- **R-TV 18** Introduction to Screenwriting  
- **R-TV 19A** Beginning Video Production  
- **R-TV 19B** Advanced Video Production  
- **R-TV 20** Television News Production  
- **R-TV 21** Remote Multicamera Production  
- **R-TV 22** Editing for Film and Television  
- **R-TV 23** Reality Show Production  
- **R-TV 24** American Film History  
- **R-TV 25** World Cinema  
- **R-TV 100** Work Experience in Film and TV

**Plus 12 units from the following courses, or any of the above courses not taken:**
- **PHOT 10** Basic Digital and Film Photography  
- **R-TV 19** Introduction to Writing for Electronic Media  
- **R-TV 20** Television News Production  
- **R-TV 21** Remote Multicamera Production  
- **R-TV 22** Editing for Film and Television  
- **R-TV 23** Reality Show Production  
- **R-TV 24** American Film History  
- **R-TV 25** World Cinema  
- **R-TV 100** Work Experience in Film and TV

**Total Units** 18.0

---

**Welding – Semiautomatic Arc Welding**  
**Technology and Health Division**  
**Degree S0919**  
This program is designed to prepare the student for employment in the broad field of welding. It leads to occupations in manufacturing and repair and helps prepare the student for positions in supervision.

**Required Courses:**
- **WELD 40** Introduction to Welding  
- **WELD 50** Oxyacetylene Welding  
- **WELD 51** Basic Electric Arc Welding  
- **WELD 53A** Welding Metallurgy  
- **WELD 70A** Beginning Arc Welding  
- **WELD 70B** Intermediate Arc Welding  
- **WELD 70C** Certification for Welders  
- **WELD 80** Construction Fabrication and Welding

**Total Units** 21.0

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**Recommended Electives:**
- **BUSM 61** Business Organization and Management  
- **WELD 30** Metal Sculpture  
- **WELD 60** Print Reading and Computations for Welders  
- **WELD 81** Pipe and Tube Welding
Associate in Arts degree in Liberal Arts and Sciences

Emphasis in Business
Degree A8981

An emphasis in Business provides the student with an understanding of business and its role in society. Students will have knowledge of various business functions and economic analysis. Upon completion of this degree students will be prepared for an entry level job in the business world.

Required Courses:

- BUSC 1A Principles of Economics 3.0
- BUSL 18H Business Law - Honors 3.0
- BUSC 17 Principles of Economics 3.0
- BUSC 30 Business Communications 3.0

PLUS Select eleven (11) Units from the following:

-SPCH 1A Public Speaking 4.0
-SPCH 1AH Public Speaking - Honors 4.0
-SPCH 2 Fundamentals of Communication 4.0
-SPCH 26 Interpersonal Communication 3.0
-SPCH 26H Interpersonal Communication - Honors 3.0

Total Units 18.5 - 22.5

for Area of Emphasis

Emphasis in Communication

Degree A8982

An emphasis in Communication provides the student with an understanding of communication strategies, reasoning, logic, and critical analysis as it relates to human interaction within multiple cultural contexts.

Required Courses:

Core/Required Courses (7 Units)

- SPCH 1A Public Speaking 4.0
- SPCH 1AH Public Speaking - Honors 4.0
- SPCH 1B Intermediate Public Speaking 3.0
- SPCH 2 Fundamentals of Communication 4.0
- SPCH 3 Voice and Diction 3.0
- SPCH 4 Performance of Literature 3.0
- SPCH 6 Group Communication 3.0
- SPCH 7 Interpersonal Communication 3.0
- SPCH 7H Intercultural Communication Honors 3.0
- SPCH 7I Intercultural Communication - Honors 3.0
- SPCH 7J Intercultural Communication - Honors 3.0
- SPCH 8 Professional and Organizational Speaking 4.0
- SPCH 8H Professional and Organizational Speaking - Honors 4.0
- SPCH 8I Professional and Organizational Speaking - Honors 4.0
- SPCH 8J Professional and Organizational Speaking - Honors 4.0
- SPCH 8K Professional and Organizational Speaking - Honors 4.0
- SPCH 8L Professional and Organizational Speaking - Honors 4.0
- SPCH 8M Professional and Organizational Speaking - Honors 4.0
- SPCH 8N Professional and Organizational Speaking - Honors 4.0
- SPCH 8O Professional and Organizational Speaking - Honors 4.0
- SPCH 8P Professional and Organizational Speaking - Honors 4.0
- SPCH 8Q Professional and Organizational Speaking - Honors 4.0
- SPCH 8R Professional and Organizational Speaking - Honors 4.0
- SPCH 9 Special Projects in Speech 2.0
- SPCH 10 Design and Production of Literature 3.0
- SPCH 11 Computer Information Systems 3.5
- SPCH 12 Communication Theory 3.0
- SPCH 13 Communication Theory and Practice 3.0
- SPCH 14 Communication Theory and Practice 3.0
- SPCH 15 Forensics: Individual Event Team 3.0
- SPCH 16 Forensics: Individual Event Team 3.0
- SPCH 17 Forensics: Debate Team 3.0
- SPCH 18 Forensics: Reader’s Theater Team 3.0
- SPCH 19 Forensics: Reader’s Theater Team 3.0
- SPCH 20 Argumentation and Debate 3.0
- SPCH 20H Argumentation and Debate - Honors 3.0
- SPCH 21 Argumentation and Debate 3.0
- SPCH 21H Argumentation and Debate - Honors 3.0
- SPCH 22 Argumentation and Debate 3.0
- SPCH 22H Argumentation and Debate - Honors 3.0
- SPCH 23 Argumentation and Debate 3.0
- SPCH 23H Argumentation and Debate - Honors 3.0
- SPCH 24 Argumentation and Debate 3.0
- SPCH 24H Argumentation and Debate - Honors 3.0
- SPCH 25 Argumentation and Debate 3.0
- SPCH 25H Argumentation and Debate - Honors 3.0
- SPCH 26 Argumentation and Debate 3.0
- SPCH 26H Argumentation and Debate - Honors 3.0
- SPCH 27 Argumentation and Debate 3.0
- SPCH 27H Argumentation and Debate - Honors 3.0
- SPCH 28 Argumentation and Debate 3.0
- SPCH 28H Argumentation and Debate - Honors 3.0
- SPCH 29 Argumentation and Debate 3.0
- SPCH 29H Argumentation and Debate - Honors 3.0
- SPCH 30 Gateway to Communication Studies 3.0
- SPCH 99 Special Projects in Speech 2.0
- JOUR 100 Introduction to Mass Media 3.0
- JOUR 101 Beginning Newswriting 3.0
- JOUR 102 Intermediate Newswriting 3.0
- JOUR 111 Broadcast News Writing 3.0
- PHOT 10 Basic Digital and Film Photography 3.0
- R-TV 01 Introduction to Electronic Media 3.0
- R-TV 11A Beginning Radio Production 3.0
- R-TV 19A Beginning Video Production 3.0
- R-TV 99 Radio/TV Special Projects 2.0

Total Units 18.0

for Area of Emphasis

ASSOCIATE IN ARTS DEGREE (AA) WITH EMPHASIS

Liberal Arts and Sciences with area of emphasis in one of the following:

Business .............................................................. 96
Communication .................................................... 96
Fine Arts .............................................................. 96
Humanities ............................................................ 97
Information Technology .......................................... 98
Kinesiology and Wellness ....................................... 99
Language Arts ....................................................... 99
Mathematics .......................................................... 100
Music ................................................................. 100
Natural Sciences .................................................... 100
Social & Behavioral Sciences .................................. 101

Mt. San Antonio College's Associate in Arts degrees are designed to meet the needs of students interested in graduating with a two-year college degree by studying in a specific area of emphasis. These students are not intending to pursue a specific occupational major, nor are they necessarily planning to transfer. However, careful educational planning with a counselor or an educational advisor will help ensure that, if a student subsequently decides to transfer at a later date to a four-year college or university, he or she would have a solid foundation in the transfer process.

To qualify for an Associate in Arts degree, students must complete all the graduation requirements as listed on page 66 of this catalog. In addition, students choose one of eleven "areas of emphasis" and complete the appropriate requirements as shown in this section. Courses listed within an area of emphasis may also be used to satisfy general education requirements, with additional elective courses chosen by the student to complete the 60-unit degree requirement. The printed degree and transcript notation will read "Associate in Arts in Liberal Arts and Sciences, Emphasis in [specific area]."

Note: Students wishing to transfer to the California State University system may be required to select additional General Education courses from either the CSU General Education pattern found on page 110 of this catalog or from the Intersegmental General Education Transfer Core Curriculum (IGETC) pattern listed on page 115 of this catalog.

Students wishing to transfer to the University of California system may be required to select additional General Education courses only from the Intersegmental General Education Transfer Core Curriculum (IGETC) pattern listed on page 115 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.

SPCH 30 Gateway to Communication Studies 3.0
SPCH 99 Special Projects in Speech 2.0
JOUR 100 Introduction to Mass Media 3.0
JOUR 101 Beginning Newswriting 3.0
JOUR 102 Intermediate Newswriting 3.0
JOUR 111 Broadcast News Writing 3.0
PHOT 10 Basic Digital and Film Photography 3.0
R-TV 01 Introduction to Electronic Media 3.0
R-TV 11A Beginning Radio Production 3.0
R-TV 19A Beginning Video Production 3.0
R-TV 99 Radio/TV Special Projects 2.0

Total Units 18.0

for Area of Emphasis

Associate in Arts degree in Liberal Arts and Sciences

Emphasis in Fine Arts
Degree A8983

An emphasis in Fine Arts provides the student with an understanding of the practices and theories of traditional and contemporary two and three-dimensional studio arts and an introduction to the history of Western art. In addition to the foundation courses, students select 12 Units from the list of approved electives.

SPCH 30 Gateway to Communication Studies 3.0
SPCH 99 Special Projects in Speech 2.0
JOUR 100 Introduction to Mass Media 3.0
JOUR 101 Beginning Newswriting 3.0
JOUR 102 Intermediate Newswriting 3.0
JOUR 111 Broadcast News Writing 3.0
PHOT 10 Basic Digital and Film Photography 3.0
R-TV 01 Introduction to Electronic Media 3.0
R-TV 11A Beginning Radio Production 3.0
R-TV 19A Beginning Video Production 3.0
R-TV 99 Radio/TV Special Projects 2.0

Total Units 18.0

for Area of Emphasis
### Programs of Study Leading to an Associate Degree

#### Required Courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARTD 15A</td>
<td>Drawing: Beginning</td>
<td>3.0</td>
</tr>
<tr>
<td>ARTD 17A</td>
<td>Drawing: Life</td>
<td>3.0</td>
</tr>
<tr>
<td>ARTD 20</td>
<td>Design: Two-Dimensional</td>
<td>3.0</td>
</tr>
<tr>
<td>ARTD 21</td>
<td>Design: Color and Composition</td>
<td>3.0</td>
</tr>
<tr>
<td>ARTD 25A</td>
<td>Beginning Painting I</td>
<td>3.0</td>
</tr>
<tr>
<td>ARTS 22</td>
<td>Design: Three-Dimensional</td>
<td>3.0</td>
</tr>
<tr>
<td>AHIS 4</td>
<td>History of Western Art: Prehistoric through Gothic</td>
<td>3.0</td>
</tr>
<tr>
<td>AHIS 4H</td>
<td>History of Western Art: Renaissance through Modern</td>
<td>3.0</td>
</tr>
<tr>
<td>AHIS 5</td>
<td>History of Western Art: Renaissance through Modern</td>
<td>3.0</td>
</tr>
<tr>
<td>AHIS 5H</td>
<td>History of Western Art: Prehistoric Through Gothic</td>
<td>3.0</td>
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<tr>
<td>PLUS</td>
<td>Select twelve (12) Units from one of the following art categories:</td>
<td></td>
</tr>
<tr>
<td>Ceramics:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ARTS 30A</td>
<td>Ceramics: Beginning I</td>
<td>3.0</td>
</tr>
<tr>
<td>ARTS 30B</td>
<td>Ceramics: Beginning II</td>
<td>3.0</td>
</tr>
<tr>
<td>ARTS 31</td>
<td>Ceramics: Advanced Studio</td>
<td>2.0</td>
</tr>
<tr>
<td>ARTS 33</td>
<td>Ceramics: Hand Construction</td>
<td>3.0</td>
</tr>
<tr>
<td>ARTS 34</td>
<td>The Sculptural Vessel</td>
<td>3.0</td>
</tr>
<tr>
<td>Sculpture:</td>
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<tr>
<td>ARTS 40A</td>
<td>Sculpture: Beginning</td>
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</tr>
<tr>
<td>ARTS 40B</td>
<td>Sculpture: Intermediate</td>
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</tr>
<tr>
<td>ARTS 40C</td>
<td>Sculpture: Carving</td>
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<tr>
<td>ARTS 41A</td>
<td>Sculpture: Life</td>
<td>3.0</td>
</tr>
<tr>
<td>ARTS 41B</td>
<td>Sculpture: Intermediate Life</td>
<td>3.0</td>
</tr>
<tr>
<td>ARTS 42</td>
<td>Sculpture: Mold Making</td>
<td>3.0</td>
</tr>
<tr>
<td>ARTS 46A</td>
<td>Sculpture: Special Effects Makeup</td>
<td>3.0</td>
</tr>
<tr>
<td>ARTS 46B</td>
<td>Sculpture: Special Effects Makeup</td>
<td>3.0</td>
</tr>
<tr>
<td>Drawing:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ANIM 101A</td>
<td>Drawing - Gesture and Figure</td>
<td>3.0</td>
</tr>
<tr>
<td>ARTD 16</td>
<td>Drawing: Perspective</td>
<td>3.0</td>
</tr>
<tr>
<td>ARTD 17B</td>
<td>Drawing: Life-Advanced</td>
<td>3.0</td>
</tr>
<tr>
<td>ARTD 23A</td>
<td>Drawing: Heads and Hands</td>
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</tr>
<tr>
<td>ARTD 23B</td>
<td>Drawing: Advanced Heads and Hands</td>
<td>1.5</td>
</tr>
<tr>
<td>ARTD 23C</td>
<td>Drawing: Expressive Heads and Hands</td>
<td>1.5</td>
</tr>
<tr>
<td>ANIM 101C</td>
<td>Figure Gesture-Design</td>
<td>3.0</td>
</tr>
<tr>
<td>ANIM 107</td>
<td>Figure in Motion</td>
<td>3.0</td>
</tr>
<tr>
<td>ANIM 111A</td>
<td>Animal Drawing</td>
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<tr>
<td>ANIM 111B</td>
<td>Animal Drawing</td>
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<td>ARTD 15B</td>
<td>Drawing: Intermediate</td>
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<tr>
<td>ANIM 101B</td>
<td>Figure Gesture - Design</td>
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<tr>
<td>Illustration:</td>
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<tr>
<td>ARTC 100</td>
<td>Graphic Design I</td>
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<tr>
<td>ARTC 163</td>
<td>Dynamic Sketching</td>
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<tr>
<td>ARTC 165</td>
<td>Illustration</td>
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<tr>
<td>ARTC 167</td>
<td>Visual Development</td>
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<tr>
<td>ARTC 169</td>
<td>Conceptual Illustration</td>
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<tr>
<td>ARTC 290</td>
<td>Portfolio</td>
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<td>ARTD 19A</td>
<td>Figure Painting</td>
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<tr>
<td>Figure:</td>
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</tr>
<tr>
<td>ANIM 101A</td>
<td>Drawing - Gesture and Figure</td>
<td>3.0</td>
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<tr>
<td>ANIM 101B</td>
<td>Figure Gesture - Design</td>
<td>3.0</td>
</tr>
<tr>
<td>ANIM 101C</td>
<td>Figure Gesture-Design</td>
<td>3.0</td>
</tr>
<tr>
<td>ANIM 107</td>
<td>Figure in Motion</td>
<td>3.0</td>
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<tr>
<td>ARTD 17B</td>
<td>Drawing: Life-Advanced</td>
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<tr>
<td>ANIM 111A</td>
<td>Animal Drawing</td>
<td>1.5</td>
</tr>
<tr>
<td>ARTD 19A</td>
<td>Figure Painting</td>
<td>3.0</td>
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<tr>
<td>ARTD 23A</td>
<td>Drawing: Heads and Hands</td>
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<tr>
<td>ARTD 23B</td>
<td>Drawing: Advanced Heads and Hands</td>
<td>1.5</td>
</tr>
<tr>
<td>ARTD 23C</td>
<td>Drawing: Expressive Heads and Hands</td>
<td>1.5</td>
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<tr>
<td>ARTS 41A</td>
<td>Sculpture: Life</td>
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<tr>
<td>ARTS 41B</td>
<td>Sculpture: Intermediate Life</td>
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<tr>
<td>Painting:</td>
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<td>ARTD 19A</td>
<td>Figure Painting</td>
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<td>ARTD 25B</td>
<td>Beginning Painting II</td>
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<td>ARTD 26A</td>
<td>Intermediate Painting I</td>
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<td>ARTD 26B</td>
<td>Intermediate Painting II</td>
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<td>ARTD 27</td>
<td>Painting: Watercolor</td>
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<td>Printmaking:</td>
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<td>ARTD 43A</td>
<td>Introduction to Printmaking</td>
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<td>ARTD 43B</td>
<td>Intermediate Printmaking in Intaglio/Relief</td>
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<td>ARTD 44A</td>
<td>Printmaking: Introduction to Lithography</td>
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<tr>
<td>ARTD 44B</td>
<td>Printmaking: Intermediate Lithography</td>
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<td>ARTD 45A</td>
<td>Printmaking: Introduction to Screenprinting</td>
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<tr>
<td>ARTD 45B</td>
<td>Printmaking: Intermediate Screenprinting</td>
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<tr>
<td>ARTD 46A</td>
<td>Printmaking: Introduction to Monotype</td>
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<tr>
<td>ARTD 46B</td>
<td>Intermediate Painterly Printmaking</td>
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<tr>
<td>ARTD 47A</td>
<td>Printmaking: Photo and Alternative Processes</td>
<td>3.0</td>
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<tr>
<td>Art Gallery:</td>
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<td>ARTC 100</td>
<td>Graphic Design I</td>
<td>3.0</td>
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<td>ARTG 20</td>
<td>Art, Artists and Society</td>
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<tr>
<td>ARTG 21A</td>
<td>Introduction to Exhibition Production</td>
<td>3.0</td>
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<tr>
<td>ARTG 21B</td>
<td>Intermediate Exhibition Production</td>
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<tr>
<td>Photography:</td>
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<tr>
<td>PHOT 10</td>
<td>Basic Digital and Film Photography</td>
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<tr>
<td>PHOT 12</td>
<td>Photographic Alternatives</td>
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<td>PHOT 9</td>
<td>Digital Image Editing for Photographers</td>
<td>3.0</td>
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<tr>
<td>or</td>
<td>or</td>
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<tr>
<td>PHOT 17</td>
<td>Photocommunication</td>
<td>3.0</td>
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<tr>
<td>Graphic Design:</td>
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<td>ARTC 100</td>
<td>Graphic Design I</td>
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<tr>
<td>ARTC 120</td>
<td>Graphic Design II</td>
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<tr>
<td>ARTC 140</td>
<td>Graphic Design III</td>
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<tr>
<td>ARTC 160</td>
<td>Typography</td>
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<tr>
<td>ARTC 200</td>
<td>Web Design</td>
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<td>ARTC 220</td>
<td>Graphic Design IV</td>
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<tr>
<td>Total Units</td>
<td>Area of Emphasis</td>
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</tr>
</tbody>
</table>

### Associate in Arts degree in Liberal Arts and Sciences

#### Emphasis in Humanities

**Degree A8984**

An emphasis in Humanities provides the student with an understanding of the interrelationship between art, religion, history, music, literature and the dramatic arts, and philosophical and political thought. This emphasis also strengthens the understanding of other cultures through the study of a foreign language. Students must select a total of 18 to 20 Units choosing courses from at least 5 of the following 7 categories:

#### Required Courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>MUS 11A</td>
<td>Music Literature Survey</td>
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<td>MUS 11B</td>
<td>Music Literature Survey</td>
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</tr>
<tr>
<td>MUS 12</td>
<td>History of Jazz</td>
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</tr>
<tr>
<td>MUS 13</td>
<td>Introduction to Music Appreciation</td>
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<tr>
<td>MUS 13H</td>
<td>Introduction to Music Appreciation - Honors</td>
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<tr>
<td>MUS 14A</td>
<td>World Music</td>
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</tr>
<tr>
<td>MUS 14B</td>
<td>American Folk Music</td>
<td>3.0</td>
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<tr>
<td>MUS 15</td>
<td>Rock Music History and Appreciation</td>
<td>3.0</td>
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<tr>
<td>AHIS 3</td>
<td>History of Women and Gender in Art</td>
<td>3.0</td>
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<tr>
<td>AHIS 3H</td>
<td>History of Women and Gender in Art – Honors</td>
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<tr>
<td>AHIS 4</td>
<td>History of Western Art: Prehistoric Through Gothic</td>
<td>3.0</td>
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<tr>
<td>AHIS 4H</td>
<td>History of Western Art: Renaissance Through Modern</td>
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</tr>
<tr>
<td>AHIS 5</td>
<td>History of Western Art: Prehistoric Through Gothic</td>
<td>3.0</td>
</tr>
<tr>
<td>AHIS 5H</td>
<td>History of Western Art - Renaissance Through Modern - Honors</td>
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<td>AHIS 6</td>
<td>History of Modern Art</td>
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<td>History of Modern Art - Honors</td>
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<td>AHIS 9</td>
<td>History of Asian Art</td>
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<td>AHIS 10</td>
<td>A History of Greek and Roman Art and Architecture</td>
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<tr>
<td>AHIS 11</td>
<td>History of African, Oceanic, and Native American Art</td>
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<td>AHIS 12</td>
<td>History of Precolombian Art and Architecture</td>
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<td>AHIS 12H</td>
<td>History of Precolombian Art and Architecture - Honors</td>
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<tr>
<td>ARCH 250</td>
<td>World Architecture I</td>
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<tr>
<td>ARCH 251</td>
<td>World Architecture II</td>
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</tbody>
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**Bookmarks**

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Programs of Study Leading to an Associate Degree

Philosophy and Political Sciences
PHIL 12 Introduction to Ethics 3.0
PHIL 12H Introduction to Ethics - Honors 3.0
PHIL 20A History of Ancient Philosophy 3.0
PHIL 20AH History of Ancient Philosophy - Honors 3.0
PHIL 20B History of Modern Philosophy 3.0
PHIL 20BH History of Modern Philosophy - Honors 3.0

POLI 5 Political Theory I 3.0
POLI 9 Introduction to International Relations 3.0

English and Dramatic Arts Literature
FRCH 60 French Culture/Cinema 3.0
ITAL 60 Italian Culture Through Cinema 3.0
LIT 10 Survey of Shakespeare 3.0
LIT 11A World Literature to 1650 3.0
LIT 11B World Literature from 1650 3.0
LIT 15 Introduction to Cinema 3.0
SPCH 4 Performance of Literature 3.0
THTR 10 History of Theater Arts 3.0

Religion and Literature
LIT 36 Introduction to Mythology 3.0
LIT 46 Bible/Lit: Old Testament 3.0
LIT 47 Bible/Lit: New Testament 3.0
PHIL 15 Major World Religions 3.0

PHIL 15H Major World Religions - Honors 3.0

History
HIST 3 World History: Prehistoric to Early Modern 3.0
HIST 3H World History: Prehistoric to Early Modern - Honors 3.0
HIST 4 World History: Early Modern to the Present 3.0

HIST 4H World History: Early Modern to the Present - Honors 3.0
HIST 10 History of Asia 3.0
HIST 11 History of Asia 3.0
HIST 16 The Wild West - A History, 1800-1890 3.0
HIST 19 History of Mexico 3.0

HIST 35 History of Africa 3.0
HIST 44 History of Native Americans 3.0

Foreign Languages
ARAB 2 Continuing Elementary Arabic 4.0
CHIN 2 Continuing Elementary Chinese 4.0
CHIN 3 Intermediate Chinese 4.0
FRCH 2 Continuing Elementary French 4.0
FRCH 3 Intermediate French 4.0
FRCH 5 Intermediate French - Honors 4.0
GERM 2 Continuing Elementary German 4.0
GERM 3 Intermediate German 4.0
ITAL 2 Continuing Elementary Italian 4.0
ITAL 3 Intermediate Italian 4.0
JAPN 2 Continuing Elementary Japanese 4.0
JAPN 3 Intermediate Japanese 4.0
SPAN 2 Continuing Elementary Spanish 4.0
SPAN 3 Intermediate Spanish 4.0
SPAN 11 Spanish for the Spanish Speaking 4.0
SPAN 12 Continuing Spanish for the Spanish Speaking 4.0
SIGN 101 American Sign Language 1 4.0
SIGN 102 American Sign Language 2 4.0

Total Units 18.0 - 20.0

Associate in Arts degree in Liberal Arts and Sciences

Emphasis in Information Technology
Degree A8985
The A.A. Degree in Liberal Arts and Sciences with an emphasis in Information Technology is designed to prepare students for a career in Information Technology. The degree offers a balanced set of classes that enable students to maintain and secure a computer, create and modify computer applications and databases, create customized reports, and use productivity software to solve business problems. Emphasis is placed on developing object-oriented, business-related applications, creating and maintaining a database, and utilizing operating system utilities to optimize, maintain and secure a computer. Career opportunities available after the completion of this degree include technical support and systems analyst. Students wishing a bachelor's degree (transfer program) should meet with a counselor or advisor to discuss transferability of course.

Required Courses:

Information Technology Basics (7 Units)
CISP 11 Computer Information Systems 3.5
CISP 15 Microcomputer Applications 3.5

Software Development (3.5 Units)
CISP 11 Programming in Visual Basic 3.0
CISP 11L Programming in Visual Basic Laboratory 0.5

CISP 21 Programming in Java 3.0
CISP 21L Programming in Java Laboratory 0.5

CISP 31 Programming in C++ 3.0
CISP 31L Programming in C++ Laboratory 0.5

CISP 41 Programming in C# 3.0
CISP 41L Programming in C# Lab 0.5

CISP 52 Mobile Device Programming 3.0
CISP 52L Mobile Device Programming Laboratory 0.5

CISW 21 Secure Web Programming with ASP.NET 3.0
CISW 21L Secure Web Programming with ASP.NET Lab 0.5

CISW 24 Secure Server Side Web Programming 3.0
CISW 24L Secure Server Side Web Programming Lab 0.5

Database Technology (3.5 Units)
CISD 11 Database Management - Microsoft Access 3.0

CISD 11L Database Management - Microsoft Access Lab 0.5

CISD 21 Database Management - Microsoft SQL Server 3.0
CISD 21L Database Management - Microsoft SQL Server Laboratory 0.5

CISD 31 Database Management - Oracle 3.0

CISD 31L Database Management - Oracle Laboratory 0.5

Operating Systems and Networking (3.0-3.5 Units)
CISN 11 Telecommunications/Networking 3.0
CISN 11L Telecommunications/Networking Lab 0.5

CISN 21 Windows Operating System 3.0

CISN 31 Linux Operating System 3.0
CISN 31L Linux Operating System Laboratory 0.5

CISN 61 Virtualization Technology 3.0

Security (3.0-4.0 Units)
CISS 13 Principles of Information Systems Security 4.0

CISS 15 Operating Systems Security 3.0

CISS 21 Network Vulnerabilities 3.0
CISS 21L Network Vulnerabilities and Countermeasures 0.5

Total Units 20.0-21.5

Recommended Electives:
BUS 17 Principles of Accounting - Financial 5.0
BUSM 20 Principles of Business 3.0
BUSM 60 Human Relations in Business 3.0
BUSO 25 Business Communications 3.0
BUSO 36 Principles of Marketing 3.0
CISB 31 Microsoft Word 3.0
CISB 51 Microsoft PowerPoint 3.0
CISM 11 Systems Analysis and Design 3.5
BUDD 17 Internet Radio and Podcasting 3.0
SPRM 26 Interpersonal Communication 3.0

or

SPRM 26H Interpersonal Communication - Honors 3.0
**Associate in Arts degree in Liberal Arts and Sciences**

**Emphasis in Kinesiology and Wellness**

**Degree A8986**

An emphasis in Kinesiology and Wellness provides the student with an understanding of kinesiology, health promotion, and the mechanics of human bodily movement. In addition to the foundational physical education and movement courses, students select courses from a scientific and nutrition and behavioral development and diversity cluster.

**Required Courses:**
Kinesiology, Movement, and Health Promotion

Select a minimum of 3 Units from the following:

- **DN-T 20** History and Appreciation of Dance 3.0
- **DN-T 18** Introduction to Dance 3.0
- **KIN 44** Theory of Coaching 3.0
- **KIN 39** Techniques of Fitness Testing 2.0
- **KIN 37** Introduction to Coaching 3.0
- **KIN 36** Human Physiology 5.0
- **CHEM 10** Chemistry for Allied Health Majors 5.0
- **CHEM 40** Introduction to General Chemistry 5.0
- **MICR 1** Principles of Microbiology 5.0
- **MICR 22** Microbiology 4.0
- **PHYS 1** Physics 4.0
- **PHYS 2AG** General Physics 4.0
- **PSYC 18** Biological Psychology 3.0
- **BIOL 1** General Biology 4.0
- **BIOL 5** Contemporary Health Issues 3.0
- **BIOL 13** Human Repro Devel Aging 3.0
- **NF 10** Nutrition for Personal Health and Wellness 3.0
- **NF 25** Essentials of Nutrition 3.0
- **NF 25H** Essentials of Nutrition - Honors 3.0

**Behavioral Development and Diversity**

Select a minimum of 3 Units from the following:

- **KIN 3** First Aid and CPR 3.0
- **KIN 5** Advanced First Aid/CPR/Emergency Response 3.0
- **KIN 13** Sports Officiating 3.0
- **KIN 17** Introduction to Kinesiology 3.0
- **KIN 19** Introduction to Care/Prevention of Activity/Related Injuries 3.0
- **KIN 34** Fitness for Living 3.0
- **KIN 39** Techniques of Fitness Testing 2.0
- **KIN 44** Coaching 3.0
- **DN-T 18** Introduction to Dance 3.0
- **DN-T 20** History and Appreciation of Dance 3.0
- **NF 10** Nutrition for Personal Health and Wellness 3.0
- **KIN 13** Human Repro Devel Aging 3.0
- **KIN 17** Introduction to Kinesiology 3.0
- **KIN 19** Introduction to Care/Prevention of Activity/Related Injuries 3.0
- **KIN 34** Fitness for Living 3.0
- **KIN 39** Techniques of Fitness Testing 2.0
- **KIN 44** Coaching 3.0
- **DN-T 18** Introduction to Dance 3.0
- **DN-T 20** History and Appreciation of Dance 3.0

**Science and Nutrition Background**

Select a minimum of 3 Units from the following:

- **ANAT 10A** Introductory Human Anatomy 4.0
- **ANAT 35** Human Anatomy 5.0
- **ANAT 10B** Introductory Human Physiology 4.0
- **ANAT 36** Human Physiology 5.0
- **CHEM 10** Chemistry for Allied Health Majors 5.0
- **CHEM 40** Introduction to General Chemistry 5.0
- **MICR 1** Principles of Microbiology 5.0
- **MICR 22** Microbiology 4.0

**Activity Course**

(A minimum of two courses selected from the following):

Students pursuing an AA degree with an emphasis in kinesiology and Wellness are required to take a minimum of two activity courses in at least two areas of kinesiology or dance:

- **KINA (Aquatics)**
- **KINF (Fitness)**
- **KIN (Individual Sports)**
- **KINS (Team Sports)**
- **KINL (Adaptive)**
- **DNCE (Dance)**
- **PHIL 9** Critical Analysis and Writing 3.0
- **ENGL 81** Language Acquisition 3.0
- **READ 100** Analysis and Critical Reading 3.0
- **SIGN 210** American Sign Language Structure 3.0
- **STUDY 100** Student Achievement and Fundamentals of Learning 3.0

**Language Arts and Diversity**

(A minimum of 6 Units selected from the following):

- **SPAN 53** Continuing Conversational Spanish 3.0
- **SPAN 54** Continuing Conversational Spanish 3.0
- **FRCH 1** Elementary French 4.0
- **FRCH 2** Continuing Elementary French 4.0
- **FRCH 3** Intermediate French 4.0
- **FRCH 4** Continuing Intermediate French 4.0
- **FRCH 53** Intermediate Conversational French 3.0
- **FRCH 54** Continuing Intermediate French 3.0
- **ITAL 1** Elementary Italian 4.0
- **ITAL 2** Continuing Elementary Italian 4.0
- **ITAL 3** Intermediate Italian 4.0
- **ITAL 4** Continuing Intermediate Italian 4.0
- **ITAL 52** Conversational Italian 3.0
- **ITAL 53** Continuing Conversational Italian 3.0
- **ITAL 54** Advanced Conversational Italian 3.0
- **GERM 1** Elementary German 4.0
- **GERM 2** Continuing Elementary German 4.0
- **GERM 3** Intermediate German 4.0
- **CHIN 1** Elementary Chinese 4.0
- **CHIN 2** Continuing Elementary Chinese 4.0
- **CHIN 3** Intermediate Chinese 4.0
- **CHIN 4** Continuing Intermediate Chinese 4.0
- **JAPN 1** Elementary Japanese 4.0
- **JAPN 2** Continuing Elementary Japanese 4.0
- **JAPN 3** Intermediate Japanese 4.0
- **JAPN 4** Continuing Intermediate Japanese 4.0
- **JAPN 5** Advanced Japanese 4.0
- **LATN 1** Elementary Latin 4.0
- **LATN 2** Continuing Elementary Latin 4.0
- **ARAB 1** Elementary Arabic 4.0
- **ARAB 2** Continuing Elementary Arabic 4.0
- **SIGN 101** American Sign Language 1 4.0
- **SIGN 102** American Sign Language 2 4.0
- **SIGN 103** American Sign Language 3 4.0
- **SIGN 104** American Sign Language 4 4.0
- **SIGN 105** American Sign Language 5 4.0
- **LIT 3** Multicultural American Literature 3.0
- **LIT 11A** World Literature to 1650 3.0
- **LIT 11B** World Literature from 1650 3.0
- **LIT 20** African American Literature 3.0
- **LIT 25** Contemporary African American Literature 3.0

**Total Units 18.0**

For Area of Emphasis
### Programs of Study Leading to an Associate Degree

**Associate in Arts degree in Liberal Arts and Sciences**  
**Emphasis in Mathematics**  
**Degree A8989**

An emphasis in Mathematics provides the student with an understanding of college level mathematics. In addition to the foundational calculus courses, students may select from computer science programming options.

**Required Courses:**  
(Minimum 18 Units selected from the following)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 130</td>
<td>College Algebra</td>
<td>4.0</td>
</tr>
<tr>
<td>MATH 140</td>
<td>Calculus for Business</td>
<td>4.0</td>
</tr>
<tr>
<td>MATH 150</td>
<td>Trigonometry</td>
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</tr>
<tr>
<td>MATH 160</td>
<td>Precalculus Mathematics</td>
<td>4.0</td>
</tr>
<tr>
<td>MATH 180</td>
<td>Calculus and Analytic Geometry</td>
<td>4.0</td>
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<tr>
<td>MATH 181</td>
<td>Calculus and Analytic Geometry</td>
<td>5.0</td>
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<tr>
<td>MATH 245</td>
<td>A Transition to Advanced Mathematics</td>
<td>3.0</td>
</tr>
<tr>
<td>MATH 280</td>
<td>Calculus and Analytic Geometry</td>
<td>5.0</td>
</tr>
<tr>
<td>MATH 285</td>
<td>Linear Algebra &amp; Diff Eqts</td>
<td>5.0</td>
</tr>
<tr>
<td>CSCI 110</td>
<td>Fundamentals of Computer Science</td>
<td>3.5</td>
</tr>
<tr>
<td>CSCI 140</td>
<td>C++ Language &amp; Objects</td>
<td>4.0</td>
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<tr>
<td>CSCI 145</td>
<td>Java Language and Object Oriented Programming</td>
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**Total Units:** 18.0

**Recommended Electives:**

<table>
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<th>Course Title</th>
<th>Units</th>
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<tbody>
<tr>
<td>MATH 100</td>
<td>Survey of College Mathematics</td>
<td>3.0</td>
</tr>
<tr>
<td>MATH 110</td>
<td>Elementary Statistics</td>
<td>3.0</td>
</tr>
<tr>
<td>MATH 110H</td>
<td>Elementary Statistics - Honors</td>
<td>3.0</td>
</tr>
<tr>
<td>MATH 115</td>
<td>Statway II</td>
<td>5.0</td>
</tr>
<tr>
<td>MATH 120</td>
<td>Finite Mathematics</td>
<td>3.0</td>
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<td>CHEM 50</td>
<td>General Chemistry I</td>
<td>5.0</td>
</tr>
<tr>
<td>CHEM 50H</td>
<td>General Chemistry I - Honors</td>
<td>5.0</td>
</tr>
<tr>
<td>PHYS 4A</td>
<td>Engineering Physics</td>
<td>5.0</td>
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<tr>
<td>PHYS 4B</td>
<td>Engineering Physics</td>
<td>5.0</td>
</tr>
<tr>
<td>PHYS 4C</td>
<td>Engineering Physics</td>
<td>5.0</td>
</tr>
</tbody>
</table>

**Total Units:** 18.0

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**Associate in Arts degree in Liberal Arts and Sciences**  
**Emphasis in Music**  
**Degree A8990**

An emphasis in Music provides the student with an understanding of music theory, harmony and the history of western music. In addition to the foundational Music courses, students select courses in piano and a performance ensemble.

**Required Courses:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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<tbody>
<tr>
<td>MUS 2</td>
<td>Music Theory</td>
<td>3.0</td>
</tr>
<tr>
<td>MUS 3A</td>
<td>Harmony - Diatonic</td>
<td>3.0</td>
</tr>
<tr>
<td>MUS 5A</td>
<td>Musicianship - Ear Training &amp; Sight Singing</td>
<td>1.0</td>
</tr>
<tr>
<td>MUS 5B</td>
<td>Musicianship - Diatonic</td>
<td>1.0</td>
</tr>
<tr>
<td>MUS 11A</td>
<td>Music Literature Survey</td>
<td>3.0</td>
</tr>
<tr>
<td>MUS 16</td>
<td>Individual Instruction</td>
<td>0.5</td>
</tr>
<tr>
<td>MUS 22</td>
<td>Conducting</td>
<td>1.5</td>
</tr>
</tbody>
</table>

**Piano**

Select two (2) Units from the following courses:

<table>
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<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUS 17A</td>
<td>Elementary Piano</td>
<td>1.0</td>
</tr>
<tr>
<td>MUS 17B</td>
<td>Intermediate Piano</td>
<td>1.0</td>
</tr>
<tr>
<td>MUS 18</td>
<td>Advanced Piano</td>
<td>1.0</td>
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</tbody>
</table>

**Performance Ensemble**

Select from the following courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>MUS 27</td>
<td>Chamber Music</td>
<td>1.5</td>
</tr>
<tr>
<td>MUS 30</td>
<td>Collegiate Chorale</td>
<td>1.0</td>
</tr>
<tr>
<td>MUS 31</td>
<td>Concert Choir</td>
<td>1.5</td>
</tr>
<tr>
<td>MUS 34</td>
<td>Women's Vocal Ensemble</td>
<td>2.0</td>
</tr>
<tr>
<td>MUS 36</td>
<td>Wind Symphony</td>
<td>1.0</td>
</tr>
<tr>
<td>MUS 38</td>
<td>Ensemble</td>
<td>0.5</td>
</tr>
<tr>
<td>MUS 39</td>
<td>Laboratory Band</td>
<td>2.0</td>
</tr>
<tr>
<td>MUS 44</td>
<td>Vocal Jazz Ensemble</td>
<td>2.0</td>
</tr>
<tr>
<td>MUS 45</td>
<td>Chamber Singers</td>
<td>2.0</td>
</tr>
<tr>
<td>MUS 47</td>
<td>Jazz Ensemble</td>
<td>2.0</td>
</tr>
<tr>
<td>MUS 48</td>
<td>Men's Vocal Ensemble</td>
<td>2.0</td>
</tr>
<tr>
<td>MUS 49</td>
<td>Wind Ensemble</td>
<td>2.0</td>
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**Total Units:** 18.0 - 20.0

**Strongly Recommended Electives:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUS 11B</td>
<td>Music Literature Survey</td>
<td>3.0</td>
</tr>
<tr>
<td>MUS 16</td>
<td>Individual Instruction</td>
<td>0.5</td>
</tr>
<tr>
<td>MUS 9</td>
<td>Introduction to Music Technology</td>
<td>3.0</td>
</tr>
<tr>
<td>Course Code</td>
<td>Course Title</td>
<td>Units</td>
</tr>
<tr>
<td>-------------</td>
<td>--------------------------------------------------</td>
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</tr>
<tr>
<td>CHEM 51</td>
<td>General Chemistry II</td>
<td>5.0</td>
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<tr>
<td>BIOL 8</td>
<td>Cell and Molecular Biology</td>
<td>4.0</td>
</tr>
<tr>
<td>CHEM 50H</td>
<td>General Chemistry I - Honors</td>
<td>5.0</td>
</tr>
<tr>
<td>LAB</td>
<td>Laboratory</td>
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</tr>
<tr>
<td>PSYC 1A</td>
<td>Introduction to Psychology</td>
<td>3.0</td>
</tr>
<tr>
<td>SOC 20H</td>
<td>Sociology of Ethnic Relations - Honors</td>
<td>3.0</td>
</tr>
<tr>
<td>METO 3L</td>
<td>Weather and Atmospheric</td>
<td>1.0</td>
</tr>
<tr>
<td>GEOL 8L</td>
<td>Earth Science Laboratory</td>
<td>1.0</td>
</tr>
<tr>
<td>GEOL 1L</td>
<td>Physical Geography</td>
<td>1.0</td>
</tr>
<tr>
<td>MICR 22</td>
<td>Microbiology</td>
<td>4.0</td>
</tr>
<tr>
<td>TOTAL UNITS</td>
<td></td>
<td>18.0</td>
</tr>
</tbody>
</table>

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

**Emphasis in Social & Behavioral Sciences Degree A8991**

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

**Required Courses:**

- ANTH 1 Biological Anthropology 3.0
- ANTH 1H Biological Anthropology - Honors 3.0
- BIOL 6 Humans and the Environment 3.0
- BIOL 17 Neurobiology and Behavior 3.0
- BIOL 20 Marine Biology 3.0
- BIOL 25 Conservation Biology 3.0
- BIOL 34 Fundamentals of Genetics 3.0
- BTNY 3 Plant Structures, Functions, and Diversity 5.0
- or

**Group 2: Life Sciences GE Labs:**

<table>
<thead>
<tr>
<th>Group 2: Life Sciences GE Labs: Select at least one (1)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANTH 1L Biological Anthropology Laboratory</td>
</tr>
<tr>
<td>BIOL 1 General Biology</td>
</tr>
<tr>
<td>BIOL 2 Plant and Animal Biology</td>
</tr>
<tr>
<td>BIOL 3 Ecology and Field Biology</td>
</tr>
<tr>
<td>BIOL 4 Biology for Majors</td>
</tr>
<tr>
<td>BIOL 4H Biology for Majors - Honors</td>
</tr>
<tr>
<td>BIOL 6L Humans and the Environment Laboratory</td>
</tr>
<tr>
<td>BIOL 8 Cell and Molecular Biology</td>
</tr>
<tr>
<td>BIOL 21 Marine Biology Laboratory</td>
</tr>
<tr>
<td>BIOL 34L Fundamentals of Genetics Lab</td>
</tr>
<tr>
<td>MICR 1 Principles of Microbiology</td>
</tr>
<tr>
<td>MICR 22 Microbiology</td>
</tr>
<tr>
<td><strong>Total Units</strong></td>
</tr>
</tbody>
</table>

**Chosen Specific Courses:**

- ANTH 1L Biological Anthropology Laboratory 1.0
- BIOL 1 General Biology 4.0
- BIOL 2 Plant and Animal Biology 4.0
- BIOL 3 Ecology and Field Biology 4.0
- BIOL 4 Biology for Majors 4.0
- BIOL 4H Biology for Majors - Honors 4.0
- BIOL 6L Humans and the Environment Laboratory 2.0
- BIOL 8 Cell and Molecular Biology 4.0
- BIOL 21 Marine Biology Laboratory 1.0
- BIOL 34L Fundamentals of Genetics Lab 1.0
- MICR 1 Principles of Microbiology 5.0
- MICR 22 Microbiology 4.0

**BIOL 6L Humans and the Environment Laboratory 1.0**

**Total Units 18.0**
Programs of Study Leading to an Associate Degree

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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<tbody>
<tr>
<td>HIST 7</td>
<td>History of the United States</td>
<td>3.0</td>
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<tr>
<td>HIST 7H</td>
<td>History of the United States - Honors</td>
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<td>History of the United States</td>
<td>3.0</td>
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<td>HIST 8H</td>
<td>History of the United States - Honors</td>
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<tr>
<td>HIST 10</td>
<td>History of Asia</td>
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<tr>
<td>HIST 11</td>
<td>History of Asia</td>
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</tr>
<tr>
<td>HIST 16</td>
<td>The Wild West - A History, 1800-1890</td>
<td>3.0</td>
</tr>
<tr>
<td>HIST 30</td>
<td>History of the African American</td>
<td>3.0</td>
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<tr>
<td>HIST 31</td>
<td>History of the African American</td>
<td>3.0</td>
</tr>
<tr>
<td>HIST 35</td>
<td>History of Africa</td>
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</tr>
<tr>
<td>HIST 40</td>
<td>History of the Mexican American</td>
<td>3.0</td>
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<tr>
<td>HIST 44</td>
<td>History of Native Americans</td>
<td>3.0</td>
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<tr>
<td>POLI 9</td>
<td>Introduction to International Relations</td>
<td>3.0</td>
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<tr>
<td>POLI 25</td>
<td>Latino Politics in the United States</td>
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<td>POLI 35</td>
<td>African American Politics</td>
<td>3.0</td>
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<tr>
<td>PSYC 17</td>
<td>Introduction to Human Services</td>
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</tr>
<tr>
<td>Total Units</td>
<td>18.0 - 19.0</td>
<td></td>
</tr>
</tbody>
</table>

Other recommended electives include:
- ANTH 3 Archaeology 3.0
- BUSM 60 Human Relations in Business 3.0
- CHLD 1 Child, Family, School and Community 3.0
- CHLD 73 Infant/Toddler Care and Development 3.0
- CHLD 85 Infants At Risk 3.0
- COUN 5 Career/Life Planning 3.0
- COUN 51 Career Planning 1.0
- ECS 41 Life Management 3.0
- LIBR 1 Information Resources and Research Methods 3.0
- LIT 3 Multicultural American Literature 3.0
- LIT 15 Introduction to Cinema 3.0
- LIT 20 African American Literature 3.0

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>LIT 25</td>
<td>Contemporary Mexican American Literature</td>
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<tr>
<td>PSYC 3</td>
<td>Introduction to Research Methods in Psychology</td>
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<td>PSYC 17</td>
<td>Introduction to Human Services</td>
<td>3.0</td>
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<tr>
<td>PSYC 19</td>
<td>Abnormal Psychology</td>
<td>3.0</td>
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<tr>
<td>PSYC 33</td>
<td>Psychology for Effective Living</td>
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<td>SL 2</td>
<td>Linked Service Learning</td>
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<tr>
<td>or</td>
<td>SPCH 26 Interpersonal Communication</td>
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<td>or</td>
<td>SPCH 26H Interpersonal Communication - Honors</td>
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</table>

Other recommended electives include:
- ANTH 3 Archaeology 3.0
- BUSM 60 Human Relations in Business 3.0
- CHLD 1 Child, Family, School and Community 3.0
- CHLD 73 Infant/Toddler Care and Development 3.0
- CHLD 85 Infants At Risk 3.0
- COUN 5 Career/Life Planning 3.0
- COUN 51 Career Planning 1.0
- ECS 41 Life Management 3.0
- LIBR 1 Information Resources and Research Methods 3.0
- LIT 3 Multicultural American Literature 3.0
- LIT 15 Introduction to Cinema 3.0
- LIT 20 African American Literature 3.0

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<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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<tbody>
<tr>
<td>AHIS 5</td>
<td>History of Western Art: Renaissance Through Modern</td>
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<td>or</td>
<td>History of Western Art: Renaissance Through Modern</td>
<td>3.0</td>
</tr>
<tr>
<td>AHIS 9</td>
<td>History of Asian Art and Architecture</td>
<td>3.0</td>
</tr>
<tr>
<td>AHIS 11</td>
<td>History of African, Oceanic, and Native American Art</td>
<td>3.0</td>
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<tr>
<td>AHIS 12</td>
<td>History of Precolombian Art and Architecture</td>
<td>3.0</td>
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<tr>
<td>AHIS 12H</td>
<td>History of Precolombian Art and Architecture - Honors</td>
<td>3.0</td>
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<tr>
<td>ARTD 15A</td>
<td>Drawing: Beginning</td>
<td>3.0</td>
</tr>
<tr>
<td>or</td>
<td>Drawing: Beginning</td>
<td>3.0</td>
</tr>
</tbody>
</table>

**Associate in Arts for Transfer Degree (AA-T):**

- **Humanities and Social Sciences Division**
  - Degree A0330
  - The academic discipline of Art History involves the study of visual objects as both works of art and as artifacts of the historical and cultural contexts in which they were created. The Associate in Arts in Art History for Transfer (AA-T) will provide the student with a solid foundation in both European and non-European art and visual culture from the periods of pre-history through modern. The degree program requires students to critically analyze visual objects from a variety of perspectives, utilizing various modes of analysis.

- **To earn an Associate in Arts in Art History for Transfer** a student must complete 60 semester Units that are eligible for transfer to the CSU that consist of:
  - 39.0 - 42.0 CSU-GE or IGETC.
  - 9.0 - 10.0 Core Courses:
    - History of Western Art: Renaissance Through Modern
    - History of Western Art: Renaissance Through Modern - Honors
    - History of Asian Art and Architecture
    - History of African, Oceanic, and Native American Art
    - History of Precolombian Art and Architecture
    - History of Precolombian Art and Architecture - Honors
    - Drawing: Beginning
    - Drawing: Beginning - Honors

- **Other recommended electives include:**
  - ANTH 3 Archaeology 3.0
  - BUSM 60 Human Relations in Business 3.0
  - CHLD 1 Child, Family, School and Community 3.0
  - CHLD 73 Infant/Toddler Care and Development 3.0
  - CHLD 85 Infants At Risk 3.0
  - COUN 5 Career/Life Planning 3.0
  - COUN 51 Career Planning 1.0
  - ECS 41 Life Management 3.0
  - LIBR 1 Information Resources and Research Methods 3.0
  - LIT 3 Multicultural American Literature 3.0
  - LIT 15 Introduction to Cinema 3.0
  - LIT 20 African American Literature 3.0

- **Degree Total:** 60.0
**Associate in Arts in Communication Studies for Transfer**

**Humanities and Social Sciences Division**

**Degree A0325**

Communication Studies is a broad-based discipline with foundational coursework in oral communication theory and skills development, augmented with course options that add dimension and depth to the student's understanding of the discipline — such as interpersonal, group, organizational and intercultural communication, argumentation, journalism, forensics, and communication research methods.

The degree program requires students to critically analyze information and arguments, select and research an appropriate topic and thesis, and logically organize the supporting material into a well-crafted presentation. Students will employ appropriate verbal and nonverbal delivery skills and visual aids to present a message to an audience in a conversational and confident manner; and formulate communication solutions to problems in a range of contexts. Students will create messages appropriate for diverse audiences and listeners and develop an improved understanding of themselves as communicators.

To earn an Associate in Arts in Communication Studies for Transfer a student must complete 60 semester Units that are eligible for transfer to the CSU that consist of: IGETC pattern or CSU GE breadth and a major of at least 18 Units. Students must have a minimum GPA of 2.0 in all CSU-transferable coursework to receive an associate degree for transfer and all courses in the major must be completed with a C or better. Students earning an associate degree for transfer will not be required to complete any other local graduation requirements.

**Required Courses:**
- Core Courses: (4 Units)
  - SPCH 1A Public Speaking 4.0
  - or
  - SPCH 1AH Public Speaking - Honors 4.0
- List A: Select any 2 courses from the following: (6 Units)
  - SPCH 6 Group Communication 3.0
  - SPCH 20 Argumentation and Debate 3.0

**Associate in Arts in English for Transfer**

**Humanities and Social Sciences Division**

**Degree A0332**

The Associate in Arts in English for Transfer introduces students to Literature written in English and gives them the option of studying creative writing. Completion of the degree provides students with the core skills and knowledge needed to pursue a baccalaureate degree in English. Those core skills and knowledge include the ability to analyze literature and the ability to write researched analytical papers. Students who earn this degree will be able to write a literary analysis, analyze major themes and concerns in literature, and identify the influence of culture on human expression.

To earn an Associate in Arts in English for Transfer a student must complete 60 semester Units that are eligible for transfer to the CSU that consist of: IGETC pattern or CSU GE breadth and a major of at least 18 Units. Students must have a minimum GPA of 2.0 in all CSU-transferable coursework to receive an associate degree for transfer and all courses in the major must be completed with a C or better. Students earning an associate degree for transfer will not be required to complete any other local graduation requirements.

**Required Courses:**
- Core Courses: (7 Units)
  - ENGL 1B English - Introduction to Literary Types 3.0
  - or
  - ENGL 1BH English - Introduction to Literary Types - Honors 3.0
- List A: Select two: (6 Units)
  - LIT 6B Survey of English Literature 3.0
  - or
  - LIT 11A World Literature to 1650 3.0
  - LIT 11B World Literature from 1650 3.0

**Associate in Arts in Geography for Transfer**

**Humanities and Social Sciences Division**

**Degree A0356**

Geography is a diverse discipline, with foundational coursework in both Earth and Social Sciences. Such foundational courses are augmented by coursework that applies geographic principles to particular world regions and by courses that explore the fundamental
Programs of Study Leading to an Associate Degree

### Associate in Arts in History for Transfer

**Humanities and Social Sciences Division**

#### Degree A0334

History is a broad-based academic discipline with foundational coursework in both World History and the History of the United States, augmented with course options that add dimension and depth to the student’s understanding of the discipline—such as history courses outside of the Western World, courses in the humanities or social sciences (including history) that address any historically under-represented group or non-western subject matter fulfilling transfer level GE categories and courses in foreign languages.

The degree program requires students to critically analyze material from a variety of sources and to develop links and connections in abstracting fundamental meaning of historical data. The course distribution of the degree will expose the students to the complexity and diversity of the historical past, thus placing the present day issues and problems within a meaningful historical context.

To earn an Associate in Arts in History for Transfer a student must complete 60 semester Units that are eligible for transfer to the CSU that consist of: IGETC pattern or CSU GE breadth and a major of at least 18 Units. Students must have a minimum GPA of 2.0 in all CSU-transferable coursework to receive an associate degree for transfer and all courses in the major must be completed with a C or better. Students earning an associate degree for transfer will not be required to complete any other local graduation requirements.

#### Required Courses:

<table>
<thead>
<tr>
<th>Required Core (7 Units)</th>
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<tbody>
<tr>
<td>GEOG 1</td>
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<td>GEOG 1H</td>
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<td>GEOG 1L</td>
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<td>GEOG 1 LH</td>
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<tr>
<td>GEOG 2</td>
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<td>GEOG 2H</td>
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<tr>
<th>List A: (9 Units)</th>
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<tr>
<td>GEOG 5</td>
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<td>GEOG 30</td>
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<td>GEOG 30H</td>
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<td>GEOG 10</td>
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<tr>
<th>List B: (3 Units)</th>
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<tbody>
<tr>
<td>ANTH 5</td>
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</table>

#### Total Units for Major: 19.0

**CSU General Education or IGETC Pattern**

Courses may be double-counted with either CSU-GE or IGETC.

**Degree Total:** 60.0

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<thead>
<tr>
<th>List A select two: (6 Units)</th>
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<tr>
<td>HIST 3</td>
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<td>HIST 3H</td>
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<tr>
<td>HIST 4</td>
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<td>HIST 4H</td>
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</tbody>
</table>

#### Group 1: Diversity Course

| AHIS 9 | History of Asian Art and Architecture | 3.0 |
| AHIS 11 | History of African, Oceanic, and Native American Art | 3.0 |
| AHIS 12 | History of Precolumbian Art and Architecture | 3.0 |
| AHIS 12H | History of Precolumbian Art and Architecture - Honors | 3.0 |
| ARAB 1 | Elementary Arabic | 4.0 |
| ARAB 2 | Continuing Elementary Arabic | 4.0 |
| CHIN 1 | Elementary Chinese | 4.0 |
| CHIN 2 | Continuing Elementary Chinese | 4.0 |
| CHIN 3 | Intermediate Chinese | 4.0 |
| CHIN 4 | Continuing Intermediate Chinese | 4.0 |
| FRCH 1 | Elementary French | 4.0 |
| FRCH 2 | Continuing Elementary French | 4.0 |
| FRCH 3 | Intermediate French | 4.0 |
| FRCH 4 | Continuing Intermediate French | 4.0 |
| GERM 1 | Elementary German | 4.0 |
| GERM 2 | Continuing Elementary German | 4.0 |
| GERM 3 | Intermediate German | 4.0 |
| HIST 10 | History of Premodern Asia | 3.0 |
| HIST 11 | History of Modern Asia | 3.0 |
| HIST 19 | History of Mexico | 3.0 |
| HIST 30 | History of the African American 1619-1877 | 3.0 |
| HIST 31 | History of the African American | 3.0 |
| HIST 35 | History of Africa | 3.0 |
| HIST 36 | Women in American History | 3.0 |
| HIST 40 | History of the Mexican American | 3.0 |
| HIST 44 | History of Native Americans | 3.0 |

<table>
<thead>
<tr>
<th>List B Select one course from each group: (6-7 Units)</th>
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</thead>
<tbody>
<tr>
<td>Group 1: Diversity Course</td>
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<tr>
<td>AHIS 9</td>
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<td>AHIS 11</td>
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<td>AHIS 12</td>
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<td>AHIS 12H</td>
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<tr>
<td>Group 2: History-Related Humanities Course</td>
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<tr>
<td>AHIS 1</td>
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<td>AHIS 3</td>
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<td>AHIS 3H</td>
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<td>AHIS 9</td>
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<td>AHIS 10</td>
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<tr>
<td>AHIS 11</td>
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</tbody>
</table>
Music is a broad-based academic discipline with foundational coursework in theory and performance. By providing a theoretical understanding of the development and creation of music, along with requisite technical proficiency, it is expected that these skills will be used to demonstrate musical sensitivity and creativity as a soloist or in the context of a musical ensemble. To further foster these skills, optional courses in the areas of piano and music history should also be taken. The degree requires four semesters of theory, four semesters of applied music (lessons), and four semesters of musical ensemble to provide the skills necessary for transferring to a 4-year institution to pursue a degree in music, including composition, performance, and/or music education.

To earn an associate degree for transfer, a student must complete 60 semester Units that are eligible for transfer to a CSU that consists of: IGETC Pattern or CSU GE breadth and a major of at least 18 Units. Students must have a minimum GPA of 2.0 in all CSU-transferable coursework to receive an associate degree for transfer and all courses in the major must be completed with a C or better. Students earning an associate degree for transfer will not be required to complete any other local graduation requirements.

Required Courses:
- Theory & Musicianship (16 Units)
  - MUS 2 - Music Theory 3.0
  - MUS 5A - Musicianship - Ear Training and Sight Singing 1.0

In lieu of Music Theory (MUS 2) and Musicianship (MUS 5A), students may substitute Fundamentals of Music (MUS 7):
- MUS 7 - Fundamentals of Music 3.0
- MUS 3A - Harmony - Diatonic 3.0
- MUS 3B - Harmony - Chromatic I 3.0
- MUS 3C - Harmony - Chromatic II 3.0
- MUS 5B - Musicianship - Diatonic 1.0
- MUS 6A - Musicianship - Chromatic I 1.0
- MUS 6B - Musicianship - Chromatic II 1.0

Applied Music: 4 semesters, 0.5 Units each (2 Units)
- MUS 16 - Individual Instruction 0.5
- Ensemble: 6 Units or 4 semesters, variable 1.5 - 2.0 Units each (5-8 Units)
- MUS 27 - Chamber Music 1.5
- MUS 31 - Concert Choir 1.5
- MUS 34 - Women's Vocal Ensemble 2.0
- MUS 39 - Laboratory Band 2.0
- MUS 45 - Chamber Singers 2.0
- MUS 47 - Jazz Ensemble 2.0
- MUS 48 - Men's Vocal Ensemble 2.0
- MUS 49 - Wind Ensemble 2.0

MUS 50 - Jazz Improvisation and Performance Choir

Degree Total: 23.0 - 26.0

Associate in Arts in Political Science for Transfer

Humanities and Social Sciences Division

Degree A0345

Political Science introduces students to political science theories and methodologies used in the scientific study of political institutions and behavior. The Associate in Arts in Political Science for Transfer degree will provide students with the foundational knowledge necessary to identify research and statistical methods appropriate to political science, to compare and contrast the major theoretical perspectives in political science, and to synthesize the analysis of institutions and individuals. The Associate in Arts in Political Science for Transfer degree is designed to assist students in seamlessly transferring to a CSU major in Political Science.

To earn an associate degree for transfer, a student must complete 60 semester Units that are eligible for transfer to a CSU that consists of: IGETC Pattern or CSU GE breadth and a major of at least 18 Units. Students must have a minimum GPA of 2.0 in all CSU-transferable coursework to receive an associate degree for transfer and all courses in the major must be completed with a C or better. Students earning an associate degree for transfer will not be required to complete any other local graduation requirements.

Required Courses:
- Core course: (3 Units)
  - POLI 1 - Political Science 3.0

List A select three: (9-10 Units)
- MATH 110 - Elementary Statistics 3.0

List B select two courses from the following or any course not selected in List A: (6 Units)
- PSYC 10 - Statistics for the Behavioral Sciences 3.0
- ANTH 5 - Principles of Cultural Anthropology 3.0
- BUSC 1A - Principles of Economics 3.0
- BUSC 1AH - Principles of Economics – Macroeconomics 3.0
- GEOG 2 - Human Geography 3.0
- GEOG 2H - Human Geography – Honors 3.0
- GEOG 30 - Geography of California 3.0
- GEOG 30H - Geography of California – Honors 3.0
- HIST 7 - History of the United States to 1877 3.0
- HIST 7H - History of the United States to 1877 – Honors 3.0
- HIST 8 - History of the United States from 1865 3.0
- HIST 8H - History of the United States from 1865 – Honors 3.0
- HIST 10 - Political Theory II 3.0
- HIST 10A - Political Theory – Early Modern to Contemporary 3.0
- HIST 10B - Environmental Politics 3.0
- HIST 10C - Latino Politics in the United States 3.0
- HIST 10D - California State and Local Government 3.0
- HIST 10E - African American Politics 3.0
- PSYC 1A - Introduction to Psychology 3.0
Programs of Study Leading to an Associate Degree

PSYC 1AH Introduction to Psychology - Honors 3.0
PSYC 3 Research Methods/Psych 4.0
PSYC 10 Statistics for the Behavioral Sciences 4.0
MATH 110 Elementary Statistics 3.0
MATH 110H Elementary Statistics - Honors 3.0
PSYC 1A Introduction to Psychology 3.0
PSYC 10H Statistics for the Behavioral Sciences 4.0

List A select one: (3-4 Units)
PSYC 14 Developmental Psychology 3.0
PSYC 13 Human Repro Devel Aging 3.0
CHLD 10 Child Growth and Lifespan Development 3.0
CHLD 10H Child Growth and Lifespan Development - Honors 3.0
ENGL 1C Critical Thinking and Writing 4.0
ENGL 1CH Critical Thinking and Writing - Honors 4.0
PHIL 3 Introduction to Logic 3.0
PHIL 3H Introduction to Logic - Honors 3.0
PHIL 8 Critical Thinking 3.0
PHIL 9 Critical Analysis and Writing 3.0
SOC 1 Sociology 3.0
SOC 1H Sociology - Honors 3.0
SOC 15 Child Development 3.0

List B: Select one course from the following or any course not selected from List A: (3 or more Units)

List C: Select one course from the following or any course not selected from List A or List B: (3 or more Units)
PSYC 5 Psychology of Reasoning and Problem Solving 3.0
PSYC 14 Developmental Psychology 3.0
PSYC 15 Introduction to Child Psychology 3.0
PSYC 19 Abnormal Psychology 3.0
PSYC 25 The Psychology of Women 3.0
PSYC 26 Psychology of Sexuality 3.0
PSYC 33 Psychology for Effective Living 3.0

Required Electives (3 Units)
ARTD 15A Drawing: Beginning 3.0
ARTD 20 Design: Two-Dimensional 3.0
ARTS 22 Design: Three-Dimensional 3.0

List A: Select one course
AHIS 5 History of Western Art: Renaissance through Modern 3.0
AHIS 5H History of Western Art: Renaissance Through Modern - Honors 3.0
ARTD 17A Drawing: Life 3.0
ARTD 21 Design: Color and Composition 3.0
ARTD 25A Beginning Painting I 3.0

List B: Select 3 courses (9 units)
ARTD 17A Drawing: Life 3.0
ARTD 21 Design: Color and Composition 3.0
ARTD 25A Beginning Painting I 3.0

To earn an Associate in Arts in Studio Arts for Transfer (AA-T) a student must complete 60 semester units that are eligible for transfer to the CSU that consist of: IGETC pattern or CSU GE breadth and a major of at least 18 units.

Students must have a minimum GPA of 2.0 in all CSU-transferable coursework to receive an associate degree for transfer and all courses in the major must be completed with a C or better. Students earning an associate degree for transfer will not be required to complete any other local graduation requirements.

Required Courses:

Core Courses: (12 Units)
AHIS 5 History of Western Art: Renaissance through Modern 3.0
AHIS 5H History of Western Art: Renaissance Through Modern - Honors 3.0
ARTD 15A Drawing: Beginning 3.0
ARTD 20 Design: Two-Dimensional 3.0
ARTS 22 Design: Three-Dimensional 3.0

List A: Select one course
AHIS 4 History of Western Art: Prehistoric through Gothic 3.0
AHIS 4H History of Western Art: Prehistoric Through Gothic - Honors 3.0

List B: Select 3 courses (9 units)
ARTD 17A Drawing: Life 3.0
ARTD 21 Design: Color and Composition 3.0
ARTD 25A Beginning Painting I 3.0

Total Units for Major 24.0
CSU General Education XX.0 - XX.0
or IGETC Pattern
Courses may be double-counted with either CSU-GE or IGETC.

Degree Total 60.0
Programs of Study Leading to an Associate Degree

Associate in Arts in Theater Arts for Transfer
Arts Division
Degree A0346

The Associate in Arts in Theater Arts for Transfer develops confidence, improves communication skills and provides experiences to work in a collaborative endeavor. In each course, students learn to perfect the skills needed for the discipline of theater while learning to work cooperatively with others in theater-related disciplines. The program emphasizes self-reliance and creative problem solving along with personal artistic development. To earn an Associate in Arts in Theater, a student must complete 60 semester Units that are eligible for transfer to the CSU that consist of: IGETC pattern or CSU GE breadth and a major of at least 18 Units. Students must have a minimum GPA of 2.0 in all CSU-transferable coursework to receive an associate degree for transfer and all courses in the major must be completed with a C or better. Students earning an associate degree for transfer will not be required to complete any other local graduation requirements.

Required Courses:
Core Courses: (9 Units)
THTR 9 Introduction to Theater Arts 3.0
THTR 10 History of Theater Arts 3.0
THTR 11 Principles of Acting I 3.0
THTR 15 Play Rehearsal and Performance 1.0 - 3.0
List A: Select three courses (9 - 9.5 Units)
THTR 12 Principles of Acting II 3.0
THTR 14 Stagecraft 3.0
THTR 15 Play Rehearsal and Performance 1.0 - 3.0
THTR 16 Theatrical Make-Up 3.0
THTR 18 Technical Theater Practicum 1.0
THTR 19 Theatrical Costuming 3.0
Total Units for Major 18.0 - 18.5
CSU General Education or IGETC Pattern
Courses may be double-counted with either CSU-GE or IGETC.
Degree Total 60.0

Associate in Science in Administration of Justice for Transfer
Technology and Health Division
Degree S0362

The Associate in Science in Administration of Justice for Transfer provides a broad base of education in the discipline. Students will acquire the ability to identify and apply legal precedents in field work, be prepared to understand the use of criminal codes in the investigation and documentation of crime, and become familiarized with the social factors that involve police interaction within the community. The degree will support students interested in branching out into the Administration of Justice discipline that are articulated as lower division major preparation for the Administration of Justice lower division course or courses outside of the Administration of Justice discipline that are lower division major preparation for the Criminal Justice or Criminology Major at any CSU. To earn an associate degree for transfer, a student must complete 60 semester Units that are eligible for transfer to CSU that consist of: IGETC pattern or CSU GE breadth and a major of at least 18 Units. Students must have a minimum GPA of 2.0 in all CSU-transferable coursework to receive an associate degree for transfer and all courses in the major must be completed with a C or better. Students earning an associate degree for transfer will not be required to complete any other local graduation requirements.

Required Courses:
Core Courses: (14 Units)
MATH 180 Calculus and Analytic Geometry 5.0
MATH 280 Calculus and Analytic Geometry 5.0
List A: (5 Units)
MATH 285 Linear Algebra 5.0
ADJU 1 The Administration of Justice System 3.0
ADJU 3 Concepts of Criminal Law 3.0
ADJU 4 Legal Aspects of Evidence 3.0
ADJU 5 Community Relations 3.0
ADJU 20 Principles of Investigation 3.0
ADJU 50 Introduction to Forensics for Criminal Justice 3.0
List C Choose any two of the following courses (6 Units)
MATH 110 Elementary Statistics 3.0
MATH 110H Elementary Statistics - Honors 3.0
PSYC 1A Introduction to Psychology 3.0
PSYC 1AH Introduction to Psychology - Honors 3.0
SOC 1 Sociology 3.0
or
SOC 1H Sociology - Honors 3.0
Total Units for Major 18.0
CSU General Education or IGETC Pattern
Courses may be double-counted with either CSU-GE or IGETC.
Degree Total 60.0

Associate in Science in Mathematics for Transfer
Natural Sciences Division
Degree S0333

Upon successful completion of Mt. San Antonio College’s Associate in Science in Mathematics for Transfer degree requirements, the student will have demonstrated understanding of differential and integral calculus of one and several variables including infinite series, vector analysis, partial derivatives and transcendental functions, as well as demonstrating knowledge of linear algebra and differential equations. This coursework will satisfy the lower division mathematics requirements at the California State University. Guaranteed admission with junior status to the CSU system will be granted in mathematics (or possibly statistics).

Required Courses:
Core Courses: (14 Units)
MATH 180 Calculus and Analytic Geometry 5.0
MATH 280 Calculus and Analytic Geometry 5.0
List B select one: (3 - 5 or more Units)
CSCI 140 C++ Language 4.0
ADJU 1 The Administration of Justice System 3.0
ADJU 3 Concepts of Criminal Law 3.0
ADJU 4 Legal Aspects of Evidence 3.0
ADJU 5 Community Relations 3.0
ADJU 20 Principles of Investigation 3.0
ADJU 50 Introduction to Forensics for Criminal Justice 3.0
List C Choose any two of the following courses (6 Units)
MATH 110 Elementary Statistics 3.0
MATH 110H Elementary Statistics - Honors 3.0
PSYC 1A Introduction to Psychology 3.0
PSYC 1AH Introduction to Psychology - Honors 3.0
SOC 1 Sociology 3.0
or
SOC 1H Sociology - Honors 3.0
Total Units for Major 18.0
CSU General Education or IGETC Pattern
Courses may be double-counted with either CSU-GE or IGETC.
Degree Total 60.0
**Programs of Study Leading to an Associate Degree — Addendum**

**Associate in Arts in Journalism for Transfer**

**Humanities and Social Sciences Division**

**Degree A0400**

The Associate in Arts in Journalism for Transfer provides a broad base of education in the discipline and introduces students to journalism and multimedia. It gives students the option of studying journalistic writing for traditional and online media. Completion of the degree provides students with the core skills and knowledge needed to pursue a baccalaureate degree in Journalism. Students who earn this degree will be able to transfer to a university or enter the local job market. In this program, students will gain hands-on experience with all aspects of news gathering, organizing, writing, and disseminating information.

To earn an Associate in Arts degree for Transfer a student must complete 60 semester units that are eligible for transfer to the CSU that consist of: IGETC pattern or CSU GE breadth and a major of at least 18 units. Students must have a minimum GPA of 2.0 in all CSU-transferable coursework to receive an associate degree for transfer and all courses in the major must be completed with a C or better. Students earning an associate degree for transfer will not be required to complete any other local graduation requirements.

**Required Courses:**

**Core Courses:** (9 Units)
- JOUR 102 Introduction to Mass Media 3.0
- JOUR 108 Writing for Public Relations 3.0
- JOUR 115 Student News Media Editing Staff 3.0

**List B: Select two: (6 Units)**
- PHOT 10 Basic Digital and Film Photography 3.0
- BUSC 1A Principles of Economics 3.0
  - Macroeconomics
- BUSC 1AH Principles of Economics 3.0
  - Macroeconomics – Honors
- POLI 1 Political Science 3.0
  - Honors
- POLI 1H Political Science – Honors 3.0
- POLI 2 Comparative Politics 3.0
- ENGL 1C Critical Thinking and Writing 4.0
- ENGL 1CH Critical Thinking and Writing – Honors 4.0
- SPCH 20 Argumentation and Debate 3.0
- SPCH 20H Argumentation and Debate – Honors 3.0

**Total Units for Major** 18.0 - 19.0

**CSU General Education** 39.0 - 42.0

**or IGETC Pattern**

Courses may be double-counted with either CSU-GE or IGETC.

**Degree Total** 60.0

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**Associate in Science in Early Childhood Education for Transfer Degree**

**Business Division**

**Degree S0401**

The Associate in Science in Early Childhood Education for Transfer requires students to critically analyze child development theory, developmentally appropriate approaches, and instructional strategies that positively influence children’s learning and development. Students explore the importance of developmental domains and use their knowledge to design, implement, and evaluate meaningful curriculum and environments that promote comprehensive developmental learning outcomes for children. Child observation, documentation, and assessment are explored as essential practices in order to develop effective curriculum and interventions. The California Title 22 regulations, standards, and policies required for early care and education programs are examined. Ethical guidelines, professional practices, and advocacy are assessed to inform future practitioners of standards in the early childhood profession. The Associate in Science in Early Childhood Education for Transfer degree qualifies students for transfer to a California State University (CSU) to complete a Baccalaureate degree in Early Childhood Education or related majors.

To earn an Associate in Science in Early Childhood Education for Transfer degree, a student must complete 60 semester units that are eligible for transfer to the CSU including only CSU GE breadth and a major of at least 24 units. Students must have a minimum GPA of 2.0 in all CSU-transferable coursework to receive an associate degree for transfer and all courses in the major must be completed with a C or better. Students earning an associate degree for transfer will not be required to complete any other local graduation requirements.

**Required Courses:**

**Core Courses:**
- CHLD 11 Child and Adolescent Development 3.0
- CHLD 1 Child, Family, School and Community 3.0
- CHLD 5 Principles and Practices in Child Development Programs 3.0
- CHLD 6 Survey of Child Development Curriculum 3.0
- CHLD 66 Early Childhood Development 2.0
- CHLD 66 Observation and Assessment 2.0

**List A: Select one: (3 Units)**
- CHLD 5 Principles and Practices in Child Development Programs 3.0

**List B: Select two: (6 Units)**
- CHLD 64 Health, Safety and Nutrition 3.0
- CHLD 67 Early Childhood Education Practicum 1.0
- CHLD 67L Early Childhood Education Practicum 2.0
- CHLD 66L Early Childhood Education Practicum Laboratory 1.0
- CHLD 6 Survey of Child Development 3.0
- CHLD 64 Child, Family, School and Community 3.0
- CHLD 66 Early Childhood Development 2.0
- CHLD 66L Early Childhood Development Laboratory 2.0
- CHLD 5 Principles and Practices in Child Development Programs 3.0
- CHLD 5 Survey of Child Development 3.0

**Total Units for Major** 24.0

**CSU General Education** 39.0

**or IGETC Pattern**

Courses may be double-counted with either CSU-GE or IGETC.

**Degree Total** 60.0
SECTION 9

Transferring to Four-Year Colleges and Universities
THE CALIFORNIA STATE UNIVERSITY

Upper Division Transfer Admission Requirements

Students are eligible for admission with 60 or more transferable semester units (90 quarter units) if they:

- Have a college grade point average of 2.00 or better (2.40 for non-California residents) in all transferable college units attempted.
- Are in good standing at the last college or university attended, i.e., 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.
- Students are advised to complete major preparation classes prior to transfer. For some majors/campuses, these courses may be required for admission. Consult university websites, counselors/advisors, and visit Mt. SAC Transfer Services for more information. Also, visit www.assist.org to find community college courses that fulfill major requirements.

Note: These are the minimum admission standards. Many campuses and majors are impacted (more competitive) and may require a higher GPA and/or completion of specific courses for admission.

Lower Division Transfer Admission Requirements

Please be aware that most CSU campuses do not admit lower-division transfer students. California residents may be eligible for CSU admission with fewer than 60 transferable semester units (90 quarter units) if they:

- Have a college grade point average of 2.00 or better in all transferable college units attempted.
- Are in good standing at the last college or university attended, i.e., eligible to re-enroll.
- Meet the admission requirements for a first-time freshman or have successfully completed necessary courses to make up the deficiencies from high school if the student did not complete the 15-unit pattern of college preparatory subjects.
- Meet the eligibility index required of a freshman.

Some campuses may require lower-division transfer students to have completed English composition and general education mathematics prior to transfer. Contact the transfer campus of choice to determine whether there are admission limits on the number of lower-division transfer students.
Transferring to Four-Year Colleges and Universities

CALIFORNIA STATE UNIVERSITY GENERAL EDUCATION REQUIREMENTS 2015-16

The requirements listed below are for the 2015-2016 academic year and are based upon information available at the time of catalog publication.

Forty-eight units of general education are required to graduate from campuses of the CSU system. A maximum of 39 units may be certified by community colleges; nine units must be taken at the upper division level. Acceptable courses are grouped in five areas, A through E. A maximum of 30 units may be certified from Areas B through D collectively. The list of certifiable courses will be subject to change year by year, but students are assured that courses taken to meet General Education-Breadth Requirements will be honored if they are on the list during the year taken.

The following program is structured so that a student who completes the program will be assured of properly meeting the General Education-Breadth Requirements of CSU. Area A and Mathematics must be completed with a minimum grade of "C." Students who have attended other colleges are urged to consult with a counselor or educational advisor for advice on satisfying General Education-Breadth Requirements. Students beginning Fall 2015 must follow 2015-2016 CSU GE—Breadth requirements. Courses are approved for the academic year in which they were completed.

Area A

The English Language and Critical Thinking (9 units)
Select one course from each group:

A-1: Oral Communication:
SPCH 1A Public Speaking
SPCH 1AH Public Speaking—Honors
SPCH 2 Fundamentals of Communication
SPCH 8 Professional and Organizational Speaking
SPCH 8H Professional and Organizational Speaking—Honors

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

A-3: Critical Thinking:
ENGL 1C Critical Thinking and Writing
ENGL 1CH Critical Thinking and Writing—Honors
PHIL 3 Introduction to Logic
PHIL 3H Introduction to Logic—Honors
PHIL 8 Critical Thinking
PHIL 9 Critical Analysis and Writing
PHIL 9H Critical Analysis and Writing—Honors
PSYC 5 Psychology of Reasoning and Problem Solving
SPCH 1B Intermediate Public Speaking
SPCH 20 Argumentation and Debate
SPCH 20H Argumentation and Debate—Honors

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

B-2: Life Science—Select at least one course from the following list:
AGOR 1 Horticultural Science
ANAT 3 Biological Psychology
ANAT 34 Fundamentals of Genetics
ANAT 34H Fundamentals of Genetics—Honors
ANAT 36H Human Physiology—Honors

B-3: Lab Science—Select at least one course from the following list:
AGOR 1L Basic Laboratory
AGOR 1LH Basic Laboratory—Honors

B-4: Mathematics
Select at least one course from the following list:
BUSC 17 Applied Business Statistics
MATH 100 Survey of College Mathematics
MATH 110 Elementary Statistics
MATH 110H Elementary Statistics—Honors
MATH 110S Integrated Statistics
MATH 115 Statway 11
MATH 120 Finite Mathematics
MATH 130 College Algebra
MATH 140 Calculus for Business
MATH 150 Trigonometry
MATH 160 Precalculus Mathematics
MATH 180 Calculus and Analytic Geometry
MATH 181 Calculus and Analytic Geometry
MATH 285 Linear Algebra

Area C

Arts, Literature, Philosophy and Foreign Languages (9 units)
Select three courses, with at least one course from "Arts" and one course from "Humanities":

C-1: Arts
AHIS 1 Understanding the Visual Arts, or
ARTB 1 Understanding the Visual Arts
AHIS 3 History of Women and Gender in Art
AHIS 3H History of Women and Gender in Art—Honors
AHIS 4 History of Western Art: Prehistoric Through Gothic
AHIS 4H History of Western Art: Prehistoric Through Gothic—Honors
AHIS 5 History of Western Art: Renaissance Through Modern
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<thead>
<tr>
<th>Area D</th>
<th>Social, Political, and Economic Institutions and Behavior; Historical Background</th>
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<tr>
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<td>Required Courses: Minimum 9 units with courses from at least two disciplines (D0 – D9):</td>
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<tr>
<td>D-0:</td>
<td>Sociology &amp; Criminology</td>
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<tr>
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<td>CHLD 1 Child, Family, School and Community</td>
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<td>SOC 1 Sociology</td>
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<td>SOC 2 Contemporary Social Problems</td>
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<td>* SOC 15 Child Development</td>
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<td>AGAG 1 Food Production, Land Use and Politics – A Global Perspective</td>
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<td>BUSC 1AH Principles of Economics</td>
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<td></td>
<td>– Macroeconomics – Honors</td>
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<td></td>
<td>BUSC 1B Principles of Economics</td>
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<td>– Microeconomics</td>
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### C-2: Humanities

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<td>English – Introduction to Literary Types</td>
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<td>History of the United States</td>
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<td>HIST 3</td>
<td>World History: Prehistoric to Early Modern</td>
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<td>History of the United States to 1877 – Honors</td>
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<td>History of the United States from 1865</td>
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<td>History of the United States from 1865 – Honors</td>
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<td>History of Premodern Asia</td>
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<td>HIST 11</td>
<td>History of Modern Asia</td>
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<td>HIST 16</td>
<td>The Wild West – A History, 1800-1890</td>
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<td>HIST 19</td>
<td>History of Mexico</td>
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<td>HIST 30</td>
<td>History of the African American 1619 - 1877</td>
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<td>HIST 31</td>
<td>History of the African American</td>
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<td>HIST 35</td>
<td>History of Africa</td>
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<td>Women in American History</td>
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<td>HIST 39</td>
<td>California History</td>
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<td>HIST 40</td>
<td>History of the Mexican American</td>
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<td>World Literature to 1650</td>
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<td>World Literature from 1650</td>
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<td>Introduction to Modern Poetry</td>
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<td>Introduction to Cinema</td>
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<td>History of Ancient Philosophy – Honors</td>
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<td>PHIL 20B</td>
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<td>Political Theory I</td>
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</tbody>
</table>
## Transferring to Four-Year Colleges and Universities

### CALIFORNIA STATE UNIVERSITY GENERAL EDUCATION REQUIREMENTS 2015-16

| BUSC 18H | Principles of Economics — Microeconomics — Honors |
| JOUR 100 | Introduction to Mass Media |
| R-TV 1 | Introduction to Electronic Media |

### D-3: Ethnic Studies

| * HIST 10 | History of Premodern Asia |
| * HIST 11 | History of Modern Asia |
| * HIST 19 | History of Mexico |
| * HIST 30 | History of the African American 1619 - 1877 |
| * HIST 31 | History of the African American 1865 - 1877 |
| * HIST 35 | History of Africa |
| * HIST 36 | Women in American History |
| * HIST 39 | California History |
| * HIST 40 | History of the Mexican American |
| * HIST 44 | History of Native Americans |

### D-4: Gender Studies

| * PSYC 25 | The Psychology of Women |

### D-6: History

| * HIST 1 | History of the United States |
| * HIST 3 | History of the African American |
| * HIST 40 | History of the Mexican American |
| * HIST 44 | History of Native Americans |

### D-7: Interdisciplinary Social or Behavioral Science

| * CHLD 10 | Child Growth and Lifespan Development |
| * CHLD 10H | Child Growth and Lifespan Development — Honors |
| * CHLD 11 | Child and Adolescent Development |
| * CHLD 23 | Child and Adolescent Development — Honors |
| * FASH 14 | Dress, Culture, and Identity |
| * HIST 16 | The Wild West — A History, 1800-1890 |
| * SPCH 7 | Intercultural Communication |
| * SPCH 7H | Intercultural Communication — Honors |
| * SPCH 26 | Interpersonal Communication |
| * SPCH 26H | Interpersonal Communication — Honors |
| * SPCH 30 | Gateway to Communication Studies |

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

| POLI 1 | Political Science |
| POLI 1H | Political Science — Honors |
| POLI 2 | Comparative Politics |
| POLI 5 | Political Theory I — Ancient to Contemporary |
| POLI 7 | Political Theory II — Early Modern to Contemporary |
| POLI 9 | Introduction to International Relations |
| POLI 10 | Environmental Politics |
| POLI 25 | Latino Politics in the United States |
| POLI 35 | African American Politics |

### D-9: Psychology

| PSYC 1A | Introduction to Psychology |
| PSYC 1AH | Introduction to Psychology — Honors |
| * PSYC 14 | Developmental Psychology |
| * PSYC 15 | Introduction to Child Psychology |
| PSYC 19 | Abnormal Psychology |

* PSYC 25 | The Psychology of Women |

### Lifelong Understanding & Self Development

**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 |
| BIOL 24 | Introduction to Public Health |
| * CHLD 10 | Child Growth and Lifespan Development |
| * CHLD 10H | Child Growth and Lifespan Development — Honors |
| * CHLD 11 | Child and Adolescent Development |
| COUN 5 | Career/Life Planning |
| FCS 41 | Life Management |
| KIN 34 | Fitness for Living |
| LEAD 55 | Exploring Leadership |
| NF 10 | Nutrition for Personal Health and Wellness |
| NF 12 | Sports Nutrition |
| NF 25 | Essentials of Nutrition |
| NF 25H | Essentials of Nutrition — Honors |
| NF 28 | Cultural and Ethnic Foods |
| * PSYC 14 | Developmental Psychology |
| * PSYC 15 | Introduction to Child Psychology |
| * PSYC 25 | The Psychology of Women |
| * PSYC 26 | Psychology of Sexuality |
| * PSYC 33 | Psychology for Effective Living |
| * SOC 15 | Child Development |

### CSU AMERICAN INSTITUTIONS & U.S. HISTORY GRADUATION REQUIREMENT:

**Option 1:** HIST 7 (or 7H) + HIST 8 (or 8H)

If Option #1 is selected, DO NOT select another D6 course as your third Area D course.

**Option 2:** Completion of one course from U.S. History plus one course from American Institutions:

- **United States History:**
  - HIST 1
  - HIST 7H
  - HIST 8H
  - HIST 31
  - HIST 40
  - POLI 1
  - POLI 25

- **American Institutions:**
  - HIST 7
  - HIST 8
  - HIST 30
  - HIST 36
  - POLI 1H
  - POLI 35

The two courses from Option 1 or Option 2 may be used as part of the 9 units for AREA D.
THE UNIVERSITY OF CALIFORNIA

Upper Division Transfer Admission Requirements
The vast majority of transfer students come to UC at the junior level from California community colleges. To be considered for UC admission as a junior, you must fulfill both of the following:

- Complete 60 semester (90 quarter) units of transferable college credit with a GPA of at least 2.4 (2.8 for nonresidents). No more than 14 semester (21 quarter) units may be taken Pass/Not Pass.
- Complete the following course pattern requirements, and earn a grade of C or better in each course:
  - Two transferable college courses (3 semester or 4-5 quarter units each) in English composition
  - One transferable college course (3 semester or 4-5 quarter units) in mathematical concepts and quantitative reasoning
  - Four transferable college courses (3 semester or 4-5 quarter units each) chosen from at least two of the following subject areas:
    - Arts and Humanities
    - Social and Behavioral Sciences
    - Physical and Biological Sciences

Note: Meeting these minimum requirements does not guarantee admission to the campus or major of your choice. Many campuses and majors receive more applications than they have spaces available. To be competitive, you should work toward meeting the specific requirements for the campuses and majors that interest you. Consult university websites, counselors/advisors, and visit Mt. SAC Transfer Services for more information. Also, visit www.assist.org to find community college courses that fulfill major requirements.

Lower Division Transfer Admission Requirements
While all UC campuses welcome a large pool of junior-level transfers, most admit only a very limited number of lower-division transfers (students with fewer than 60 units). You may establish eligibility for lower division transfer:

- If you were eligible for admission to UC when you graduated from high school, meaning you satisfied the subject, examination and scholarship requirements, you are eligible for transfer if you have a 2.0 GPA in your transferable college coursework (2.8 GPA for nonresidents). Visit the UC admissions website for more information about these requirements:
  www.universityofcalifornia.edu/admissions.

If you met the scholarship requirement in high school, but did not satisfy the 15-course subject requirement, you must take transferable college courses in the missing subjects, earn a grade of C or better in each required course and have an overall 2.0 GPA in all transferable coursework to be eligible to transfer (a 2.8 GPA is required for nonresidents).
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 2015 must follow 2015-2016 IGETC requirements. Courses are approved for the academic year in which they were completed.

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<td>ENGL 1A Freshman Composition</td>
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<td>ENGL 1AH Freshman Composition – Honors</td>
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<td>ENGL 1CH Critical Thinking and Writing – Honors</td>
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<td>PHIL 9H Critical Analysis and Writing – Honors</td>
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<td>SPCH 1A Public Speaking</td>
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<td>SPCH 1AH Public Speaking – Honors</td>
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<td>MATH 110H Elementary Statistics – Honors</td>
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<td>MATH 110S Integrated Statistics</td>
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<td>MATH 120 Finite Mathematics</td>
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<td>MATH 130 College Algebra</td>
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<td>MATH 140 Precalculus Mathematics</td>
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<td>MATH 160 Precalculus Mathematics</td>
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<tr>
<td>MATH 180 Calculus and Analytic Geometry</td>
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<tr>
<td>MATH 181 Calculus and Analytic Geometry</td>
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| CHIN 4 Continuing Intermediate Chinese |
| ENGL 1B English – Introduction to Literary Types |
| ENGL 18H English – Introduction to Literary Types – Honors |
| FRCH 3 Intermediate French |
| FRCH 4 Continuing Intermediate French |
| FRCH 60 French Culture Through Cinema |
| GERM 3 Intermediate German |
| HIST 1 History of the United States |
| HIST 3 Survey of World History: Prehistoric to Early Modern |
| HIST 3H World History: Prehistoric to Early Modern – Honors |
| HIST 4 World History: Early Modern to the Present |
| HIST 4H World History: Early Modern to the Present – Honors |
| HIST 7 History of the United States to 1877 |
| HIST 7H History of the United States to 1877 – Honors |
| HIST 8 History of the United States from 1865 |
| HIST 10 History of Premodern Asia |
| HIST 11 History of Modern Asia |
| * POLI 16 The Wild West – A History, 1800-1890 |
| HIST 19 History of Mexico |
| HIST 30 History of the African American to Contemporary |
| * HIST 31 History of the African American to Contemporary |
| HIST 35 History of Africa |
| HIST 36 Women in American History |
| HIST 39 California History |
| HIST 40 History of the Mexican American |
| HUMA 1 The Humanities |
| ITAL 3 Intermediate Italian |
| ITAL 4 Continuing Intermediate Italian |
| ITAL 60 Italian Culture Through Cinema |
| JAPN 3 Intermediate Japanese |
| JAPN 4 Continuing Intermediate Japanese |
| JAPN 5 Advanced Japanese |
| LIT 1 Early American Literature |
| LIT 2 Modern American Literature |
| LIT 3 Multicultural American Literature |
| LIT 6A Survey of English Literature |
| LIT 6B Survey of English Literature |
| LIT 10 Survey of Shakespeare |
| LIT 11A World Literature to 1650 |
| LIT 11B World Literature from 1650 |
| LIT 14 Introduction to Modern Poetry |
| LIT 15 Introduction to Cinema |
| LIT 20 African American Literature |
| LIT 25 Contemporary Mexican American Literature |
| LIT 36 Introduction to Mythology |
| LIT 46 The Bible as Literature: Old Testament |
| LIT 47 The Bible as Literature: New Testament |
| PHIL 5 Introduction to Philosophy |
| PHIL 5H Introduction to Philosophy – Honors |
| PHIL 12 Introduction to Ethics |
| PHIL 12H Introduction to Ethics – Honors |
| PHIL 15 Major World Religions |
| PHIL 15H Major World Religions – Honors |
| PHIL 20A History of Ancient Philosophy |
| PHIL 20AH History of Ancient Philosophy – Honors |
| PHIL 20B History of Modern Philosophy |
| PHIL 20BH History of Modern Philosophy – Honors |
| * POLI 5 Political Theory I |
| * POLI 7 Political Theory II – Early Modern to Contemporary |
| SIGN 104 American Sign Language 4 |
| SIGN 202 American Deaf Culture |
| SPAN 3 Intermediate Spanish |
| SPAN 4 Continuing Intermediate Spanish |
### Area 4

**Social and Behavioral Sciences**
Select three courses total from a minimum of two different subject areas:
- **ANTH 3**: Archaeology
- **ANTH 5**: Principles of Cultural Anthropology, or **ANTH 22**: General Cultural Anthropology
- **BUSC 1A**: Principles of Economics: Microeconomics
- **BUSC 1AH**: Principles of Economics: Macroeconomics
- **BUSC 1B**: Principles of Economics: Microeconomics
- **GEOG 2**: Human Geography
- **GEOG 2H**: Human Geography – Honors
- **GEOG 8**: The Urban World
- **GEOG 30**: Geography of California
- **GEOG 30M**: Geography of California – Honors
- **HIST 16**: The Wild West — A History, 1800-1890
- **HIST 44**: History of Native Americans
- **Poli 1**: Political Science
- **Poli 1H**: Political Science — Honors
- **Poli 5**: Political Theory I
- **Poli 7**: Political Theory II — Contemporary
- **Poli 9**: Introduction to International Relations
- **Poli 10**: Environmental Politics
- **Poli 25**: Latino Politics in the United States
- **Poli 35**: African American Politics
- **PSYC 1A**: Introduction to Psychology
- **PSYC 1AH**: Introduction to Psychology — Honors
- **PSYC 14**: Developmental Psychology
- **PSYC 15**: Introduction to Child Psychology
- **PSYC 19**: Abnormal Psychology
- **PSYC 25**: The Psychology of Women
- **SOC 1**: Sociology
- **SOC 1H**: Sociology — Honors
- **SOC 2**: Contemporary Social Problems
- **SOC 2H**: Contemporary Social Problems — Honors
- **SOC 4**: Introduction to Gerontology
- **SOC 5**: Introduction to Criminology
- **SOC 5H**: Introduction to Criminology — Honors
- **SOC 20**: Sociology of Ethnic Relations
- **SOC 20H**: Sociology of Ethnic Relations — Honors
- **SPCH 7**: Intercultural Communication
- **SPCH 7H**: Intercultural Communication — Honors
- **SPCH 26**: Interpersonal Communication
- **SPCH 26H**: Interpersonal Communication — Honors
- **SPCH 30**: Gateway to Communication Studies

### Area 5

**Physical and Biological Sciences**
Choose two courses, one physical and one biological science, at least one must include a laboratory. Laboratory must be a corresponding section to the lecture course taken. Laboratory courses are underlined.

**Physical Science:**
- **ASTR 5**: Introduction to Astronomy
- **ASTR 5H**: Introduction to Astronomy — Honors
- **ASTR 5L**: Astronomical Observing Laboratory
- **ASTR 7**: Geology of the Solar System
- **ASTR 8**: Introduction to Stars, Galaxies, and the Universe
- **CHEM 10**: Chemistry for Allied Health Majors
- **CHEM 20**: Introductory Organic and Biochemistry
- **CHEM 40**: Introduction to General Chemistry
- **CHEM 50**: General Chemistry I
- **CHEM 50H**: General Chemistry I — Honors
- **CHEM 51**: General Chemistry II
- **CHEM 51H**: General Chemistry II — Honors
- **GEOG 1**: Elements of Physical Geography
- **GEOG 1H**: Elements of Physical Geography — Honors
- **GEOG 1L**: Physical Geography Laboratory
- **GEOG 1LH**: Physical Geography Laboratory — Honors
- **GEOL 1**: Physical Geography
- **GEOL 1H**: Physical Geography — Honors
- **GEOL 6L**: Humans and the Environment Laboratory
- **METO 3**: Weather and Atmospheric Environment
- **METO 3L**: Weather and Atmospheric Environment Laboratory
- **OCEA 10**: Introduction to Oceanography
- **OCEA 10H**: Introduction to Oceanography — Honors
- **PHSC 3**: Energy Science
- **PHYS 1**: Physics
- **PHYS 1A**: General Physics
- **PHYS 1B**: General Physics
- **PHYS 4**: Engineering Physics
- **PHYS 4A**: Engineering Physics
- **PHYS 4B**: Engineering Physics

**Biological Science:**
- **ANAT 10A**: Introductory Human Anatomy
- **ANAT 10B**: Introductory Human Physiology
- **ANAT 10H**: Introductory Human Physiology — Honors
- **ANAT 36**: Human Physiology
- **ANTH 1**: Biological Anthropology
- **ANTH 1H**: Biological Anthropology — Honors
- **ANTH 1L**: Biological Anthropology Laboratory
- **BIOL 1**: General Biology
- **BIOL 2**: Plant and Animal Biology
- **BIOL 3**: Ecology and Field Biology
- **BIOL 4**: Biology for Majors
- **BIOL 4H**: Biology for Majors — Honors
- **BIOL 6**: Humans and the Environment

**UC REQUIREMENT ONLY**

**Language other than English:**
The minimum proficiency required is met by completing one of the courses listed below or by completion of two years of high school study in the same language.

- **ARAB 1**: Elementary Arabic
- **JAPN 1**: Elementary Japanese
- **CHIN 1**: Elementary Chinese
- **LATN 1**: Elementary Latin
- **FRCH 1**: Elementary French
- **SIGN 101**: American Sign Language
- **GERM 1**: Elementary German
- **SPAN 1**: Elementary Spanish
- **ITAL 1**: Elementary Italian
- **SPAN 11**: Spanish for the Spanish Speaking

**CSU GRADUATION REQUIREMENTS ONLY IN U.S. HISTORY, CONSTITUTION, AND AMERICAN IDEALS:**
**Note:** UCSC requires a college-level U.S. history or government course.

**Option 1:**
- **HIST 7 (or 7H)** + **HIST 8 (or 8H)**
  - If Option #1 is selected, DO NOT select another D6 course as your third Area D course, or

**Option 2:**
- Completion of one course from U.S. History plus one course from American Institutions.

**United States History:**
- **HIST 1**: History of the United States
- **HIST 7**: History of the United States to 1820
- **HIST 7H**: History of the United States to 1877
- **HIST 8**: History of the United States from 1865
- **HIST 8H**: History of the United States from 1865
- **HIST 9**: History of the United States to 1877
- **HIST 30**: History of the African American 1619-1877
- **HIST 31**: History of the African American

**American Institutions:**
- **POLI 1**: Political Science
- **POLI 1H**: Political Science — Honors
- **POLI 25**: Latino Politics in the United States
- **POLI 35**: African American Politics
- **POLI 40**: History of the Mexican American
- **POLI 10**: Environmental Politics
- **POLI 25**: Latino Politics in the United States
- **POLI 35**: African American Politics
- **POLI 40**: History of the Mexican American

**Notes:**
UC limits transfer credit for some courses. Students may review the UC Transfer Course Agreement (TCA) with an educational advisor or counselor in the Student Services Center. Students must see an educational advisor or counselor for preliminary IGETC certification. For IGETC certification, the course must be on the list during the year taken. Students from non-English speaking countries should see an educational advisor or counselor for preliminary IGETC certification. 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 counselor for preliminary IGETC certification.
OUT-OF-STATE COLLEGES AND UNIVERSITIES

Students may also consider transferring to colleges and universities in other states. Admission requirements vary by school. For more information, visit college/university websites, www.aiicu.edu, or Mt. SAC Transfer Services.
DEFINITIONS OF TERMS

Course Identification Numbering System (C-ID)
The Course Identification Numbering System (C-ID) is a statewide numbering system independent from the course numbers assigned by local California community colleges. A C-ID number next to a course signals that participating California colleges and universities have determined that courses offered by other California community colleges are comparable in content and scope to courses offered on their own campuses, regardless of their unique titles or local course number. Thus, if a schedule of classes or catalog lists a course bearing a C-ID number, for example ENGL 100, students at that college can be assured that it will be accepted in lieu of a course bearing the C-ID ENGL 100 designation at any other community college. In other words, the C-ID designation can be used to identify comparable courses at different community colleges.

The C-ID numbering system is useful for students attending more than one community college and is applied to many of the transferable courses students need as preparation for transfer. Because these course requirements may change and because courses may be modified and qualified for or deleted from the C-ID database, students should always check with a counselor to determine how C-ID designated courses fit into their educational plans for transfer.

Students may consult the ASSIST database at www.assist.org for specific information on C-ID course designations. Counselors are also available in the Counseling Center to help students interpret this information.

CSU Transfer
Courses designated “CSU” are baccalaureate level and will transfer to all of the California State Universities and count toward graduation at Mt. San Antonio College.

UC Transfer
Courses designated “UC” are baccalaureate level and will transfer to all of the University of California campuses and California State Universities, and will count toward graduation at Mt. San Antonio College.

UC Credit Limitation
UC limits credit for some courses. Students contemplating transfer to UC should consult with a counselor or advisor and review www.assist.org for course credit limitations and changes.

UC Credit for Kinesiology Activity Courses
A maximum of four semester units of UC credit will be awarded for Kinesiology Activity courses. Courses of a vocational nature will not be awarded UC credit.

Eligibility
In listing a prerequisite for enrolling in a course, an “eligibility” may also be listed. An eligibility requirement specifies the course level the student must qualify to enroll in—not that the course has to be completed prior to enrollment. For example, the prerequisite “eligibility for English 68” requires that the student must qualify to enroll in English 68 in order to enroll in the particular course.

Prerequisite
A prerequisite is a course which must be taken as preparation for enrolling in another course.

Corequisite
A corequisite is a course which is required to be taken simultaneously in order to enroll in another course.

Advisory
An advisory is a course which is advised, but not required, to be taken either before or in conjunction with enrollment in a course.

Not Degree Applicable
Courses designated “Not Degree Applicable” are college level classes which are neither a part of an associate degree or certificate program nor transferable to four-year colleges and universities.

Degree Applicable
Courses designated “Degree Applicable” are college-level classes which are a part of an associate degree or certificate program.
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**Course Descriptions:**

**ADMINISTRATION OF JUSTICE: LAW ENFORCEMENT**

- **ADJU 110 — The Administration of Justice System** 3 Units
  - Degree Applicable, CSU, UC
  - 54 hours lecture
  - History and philosophy of the justice system, subsystems, roles, relationships and theories of crime causation and correction.

- **ADJU 122 — Principles and Procedures of the Law Enforcement System** 3 Units
  - Degree Applicable, CSU
  - 54 hours lecture
  - Due process in criminal proceedings from pre-arrest through trial and appeal using statutory law and legal precedent.

- **ADJU 120 — Concepts of Criminal Law** 3 Units
  - Degree Applicable, CSU, UC
  - 54 hours lecture
  - Classification of crime, elements of crimes, common and statutory law, and evidence as observed through the study of case law decisions by state and federal courts.

- **ADJU 124 — Legal Aspects of Evidence** 3 Units
  - Degree Applicable, CSU
  - 54 hours lecture
  - Criminal evidence, including admissibility, witness competency, privileged communication, hearsay, and collection and preservation of evidence.

- **ADJU 160 — Community Relations** 3 Units
  - Degree Applicable, CSU, UC
  - 54 hours lecture
  - Prerequisite: Eligibility for ENGL 68
  - Examines the complex, dynamic relationship between communities and the justice system in addressing crime and conflict with an emphasis on the challenges and prospects of administering justice within a diverse multicultural population.

- **ADJU 140 — Concepts of Enforcement Services** 3 Units
  - Degree Applicable
  - 54 hours lecture
  - Responsibilities, techniques and methods of police patrol with emphasis on the knowledge required in handling common police occurrences.

- **ADJU 141 — Concepts of Traffc Services** 3 Units
  - Degree Applicable
  - 54 hours lecture
  - Traffic management, collision reconstruction, collision factors including law violations and human factors, collision evidence, traffic enforcement techniques and traffic management specialization. Emphasis is placed on service to the motoring public.

- **ADJU 142 — Vice Control** 3 Units
  - Degree Applicable
  - 54 hours lecture
  - Prerequisite: Eligibility for ENGL 1A
  - Code and case law dealing with vice detection and suppression, apprehension and prosecution of violators, gambling, prostitution, and sex crimes.

**ADJU 143 — The Administration of Justice System** 3 Units
- Degree Applicable, CSU
- 54 hours lecture
- 4th Amendment issues including crime scene search and recording; collection and preservation of physical evidence; modus operandi; suspect profiling scientific aids; sources of information; use of informants; interviews and interrogation; follow up and case preparation.

- **ADJU 144 — Principles of Investigation** 3 Units
  - Degree Applicable, CSU
  - 54 hours lecture
  - Prerequisite: Eligibility for ENGL 68
  - Investigation; 4th Amendment issues including crime scene search and recording; collection and preservation of physical evidence; modus operandi; suspect profiling scientific aids; sources of information; use of informants; interviews and interrogation; follow up and case preparation.

- **ADJU 145 — Introduction to Forensics for Criminal Justice** 3 Units
  - Degree Applicable, CSU
  - The science of collecting, preserving and analyzing physical evidence. Focuses on the reliability of physical evidence for the purpose of establishing facts and proof.

- **ADJU 146 — Gangs and Corrections** 3 Units
  - Degree Applicable, CSU
  - 54 hours lecture
  - Prerequisite: Eligibility for ENGL 68, and ADJU 1
  - Contemporary street and prison gang issues, including historical and current perspectives, gang dynamics, identification of characteristics, and cultural differences of gang philosophy. Includes law enforcement and corrections role in intervention and suppression.

- **ADJU 147 — Administration of Justice Report Writing** 3 Units
  - Degree Applicable, CSU
  - 54 hours lecture
  - Prerequisite: Eligibility for ENGL 1A
  - Techniques for proper documentation of crime reports and related law enforcement records. Use of simulations and role-playing.

- **AERO 100 — Primary Pilot Ground School** 4 Units
  - Degree Applicable, CSU
  - 72 hours lecture
  - Formerly AERO 23.
  - Aerodynamics, aircraft performance, Federal Aviation Regulations, aviation weather factors, and cross-country navigation procedures; provides introductory material on radio navigation, aeromedical factors, and radio communications procedures. Meets the preparation requirements for the FAA Private Pilot knowledge examination and FAA Air Traffic Control Basics.

- **AERO 102 — Aviation Weather** 3 Units
  - Degree Applicable, CSU
  - 54 hours lecture
  - Formerly AERO 26.
  - Weather elements, atmosphere, weather mechanics, weather disturbances, weather analysis and forecasts. Evaluation of aviation weather reports and forecasts.

- **AERO 104 — Federal Aviation Regulations** 2 Units
  - Degree Applicable, CSU
  - 36 hours lecture
  - Formerly AERO 29.
  - Federal Aviation Regulations (FAR), pertaining to pilot certification, aircraft maintenance, general operating rules; air traffic control practices and procedures; reporting of aircraft accidents.
Course Descriptions

AERO 150 — Commercial Pilot Ground School 3 Units
Degree Applicable, CSU
54 hours lecture
Advisory: AERO 23 or AERO 100
Formerly AERO 25.
Federal Aviation Administration (FAA) Commercial Pilot certification requirements, including aerodynamics, commercial pilot maneuvers, complex aircraft operations, multi-engine aircraft operations, aircraft weight and balance, aircraft performance charts, and radio navigation using advanced instrumentation. Prepares students for completion of the FAA Commercial Pilot Computerized Knowledge Examination.

AERO 152 — Air Transportation 3 Units
Degree Applicable, CSU
54 hours lecture
Formerly TRAN 17.
Survey course of the air transportation industry. Topics include an introduction to air transportation, structure and economics of the airlines, general aviation operations, and aviation career planning.

AERO 200 — Aviation Safety and Human Factors 3 Units
Degree Applicable, CSU
54 hours lecture
Advisory: AERO 23 or AERO 100
Formerly AERO 27.
Evaluation and analysis of factors leading to aircraft accidents as it relates to the environment of the pilot and air traffic controller.

AERO 202 — Aircraft and Engines 3 Units
Degree Applicable, CSU
54 hours lecture
Advisory: AERO 100 or AERO 23
Formerly AERO 28.
Aircraft design, subsystems, repair and maintenance. Principles of internal combustion engines, fuel system, engine construction and design, lubrication and cooling methods, ignition system, basic troubleshooting. Turbine engine basic design and operational characteristics.

AERO 206L — Flight Simulator Laboratory .5 Unit
Degree Applicable
(54 hours lab
Advisory: AERO 25 or AERO 150
Formerly AERO 41.
Flight simulator training in the iGATE Computer-based Aviation Training (PC-ATD) simulator in preparation for the instrument rating. Full and partial panel airwork, holding patterns, VHF Omni-directional Range (VOR) and Automatic Directional Finder (ADF) orientation, and instrument approach procedures.

AERO 250 — Navigation 3 Units
Degree Applicable, CSU
54 hours lecture
Advisory: AERO 23 or AERO 100
Formerly AERO 24.
Dead reckoning navigation procedures. Aeronautical computer and their application in cross-country flying. Use of radio navigation aids, flight planning, flight directors, global positioning system, and electronic flight instrumentation systems.

AERO 252 — Instrument Ground School 3 Units
Degree Applicable, CSU
54 hours lecture
Advisory: (AERO 23 or AERO 100) and (AERO 26 or AERO 102)
Formerly AERO 30.
Instrument Flight Rules (IFR), Air Traffic Control communications and procedures, air navigation radio aids, instrument flying, flight instructor ground school, and preparation requirements for the FAA Instrument Pilot computerized knowledge exam.

AERO 256 — Flight Instructor Ground School 3 Units
Degree Applicable, CSU
54 hours lecture
Advisory: (AERO 25 or AERO 150) and (AERO 30 or AERO 252)
Formerly AERO 58.
Basic teaching principles, and application of those principles in teaching student pilots. Analysis of flight maneuvers and instruments. Prepares students for FAA knowledge tests for Flight Instructors.

AERO 258 — Multi-Engine Turbine Aircraft Operations 3 Units
Degree Applicable, CSU
54 hours lecture
Advisory: (AERO 23 or AERO 100) and (AERO 30 or AERO 252)
Formerly AERO 45A.
Design features and operational characteristics of a multi-engine turbine aircraft utilized in regional airline operations and corporate aviation, with emphasis on aircraft and engine systems. Off-campus trips maybe required.

AGHE 54 — Veterinary Office Procedures 3 Units
Degree Applicable, CSU
54 hours lecture
Prerequisite: AGHE 60 and Formal Admittance to the Registered Veterinary Technology Program
Incorporates respiratory, cardiovascular, and integumentary systems, animal nutrition, and the basics of animal behavior.

AGHE 60 — Medical Nursing and Animal Care 4 Units
Degree Applicable, CSU
54 hours lecture
54 hours lab
Prerequisite: AGHE 86 and AGHE 64 and Formal admittance to the Registered Veterinary Technology program
Animal examination for health and disease conditions in the animal hospital, including sanitation, administration of medicine, emergency treatment, therapeutic techniques, dental prophylaxis, venipuncture, electrocardiography, application of casts, splints and other appliances. Includes diseases both infectious and zoonotic, their causes and effects, and immunology of animals. Formal admittance to the Registered Veterinary Technology program required.

AGHE 61 — Surgical Nursing 4 Units
Degree Applicable, CSU
54 hours lecture
54 hours lab
Prerequisite: AGHE 60 and Formal Admittance to the Registered Veterinary Technology Program
Surgical preparation, surgical assistance, post-operative care, administering and monitoring 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 and Formal Admittance to the Registered Veterinary Technology Program
Hematology, clinical chemistries, internal parasites, immunology, serology, and vaginal cytology of domestic animals.

AGHE 62B — Clinical Pathology 4 Units
Degree Applicable, CSU
54 hours lecture
54 hours lab
Prerequisite: AGHE 60 and Formal Admittance to the Registered Veterinary Technology Program
Bacteriology, clinical chemistry, urinalysis, external parasites and cytology of domestic animals.

AGHE 64 — Veterinary Pharmacology 3 Units
Degree Applicable, CSU
54 hours lecture
Prerequisite: AGHE 86, MATH 71, MATH 71B, or MATH 71X
Pharmaceuticals and biologics commonly used in the maintenance of animal health. Includes generic terminology, abbreviations for prescriptions, labeling requirements, state and federal laws, classification of materials, weights and measures, drug dosage flow rates, pharmacological mathematics and the metric system, side effects and drug interactions.
Course Descriptions

AGHE 65 — Veterinary Radiography  2 Units
18 hours lecture
54 hours lab
Prerequisite: AGHE 86 and formal admittance to the registered veterinary technology program
Concepts and skills of veterinary positioning of canine, feline, avian, reptilian species, and livestock for radiography; processing of the radiograph; radiation safety; technique and instrumentation; contrast radiography, dental radiology and advanced imaging such as ultrasound, MRI, CT scan, nuclear isotopes scans. Emphasizes performance of x-ray procedures for the veterinary practitioner.

AGHE 66 — Anatomy and Physiology of Domestic Animals  4 Units
54 hours lecture
54 hours lab
Advisory: BIOL 1
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 67 — Radiography  2 Units
18 hours lecture
Prerequisite: AGHE 60 and completion of the Registered Veterinary Technology program.
Prepares students for national and state veterinary technician registration examinations. Includes exposure to the types of questions encountered in registration examinations, question analysis strategies, and review of important anatomical, physiological, and nursing concepts.

AGHE 68 — Animal Care and Husbandry  1 Unit
36 hours lecture
54 hours lab
Laboratory animal medicine, care and procedures, rules and regulations governing laboratory animals.

AGHE 69 — Laboratory Animal Medicine and Care  3 Units
36 hours lecture
54 hours lab
Laboratory animal medicine, care and procedures, rules and regulations governing laboratory animals.

AGHE 70 — Animal Breeding  3 Units
54 hours lecture
Prerequisite: AGHE 79 and completion of the Registered Veterinary Technology program.
The science of animal breeding, including fundamentals of inheritance, reproduction and breeding systems for domestic animals. Artificial insemination, embryo manipulation and current topics in reproductive biotechnology will also be included.

AGHE 71 — Animal Health  4 Units
54 hours lecture
Prerequisite: Formal Admittance to the Registered Veterinary Technology Program
A field study course that emphasizes practical experience in applied clinical procedures and techniques, including treatments, preventive health care and minor surgical procedures with school owned domestic farm animals. Experiences with animals will vary due to seasonal changes and different husbandry practices during fall and spring.

AGHE 72 — Animal Nutrition  3 Units
54 hours lecture
Prerequisite: Eligibility for MATH 51
Calculating the proper dosages of veterinary drugs, application rates of farm and horticultural chemicals inclusive of fertilizer and pesticide materials, feed rations, land area and volume measurements, calibrating application equipment, plotting production rates and feed conversion, determining proper concentrations and dilutions.

AGHE 73 — Animal Science  3 Units
54 hours lecture
Prerequisite: Completion of the Registered Veterinary Technology Program
Surveys the world's food producing systems in terms of economic, political and cultural forces. Emphasizes ethical, sustainable food production agriculture.

AGHE 74 — Animal Science Field Work  4 Units
75 to 150 hours lab
Prerequisite: AGHE 73 and completion of the Registered Veterinary Technology Program
Surveys the world's food producing systems in terms of economic, political and cultural forces. Emphasizes ethical, sustainable food production agriculture.

AGHE 75 — Seminar in Registered Veterinary Technology  1 Unit
Degree Applicable
18 hours lecture
Prerequisite: AGHE 60 and completion of the Registered Veterinary Technology program.
Prepares students for national and state veterinary technician registration examinations. Includes exposure to the types of questions encountered in registration examinations, question analysis strategies, and review of important anatomical, physiological, and nursing concepts.

AGHE 76 — Animal Science Field Work  4 Units
75 to 150 hours lab
Prerequisite: AGHE 73 and completion of the Registered Veterinary Technology Program
Surveys the world's food producing systems in terms of economic, political and cultural forces. Emphasizes ethical, sustainable food production agriculture.

AGHE 77 — Animal Science Field Work  4 Units
75 to 150 hours lab
Prerequisite: AGHE 73 and completion of the Registered Veterinary Technology Program
Surveys the world's food producing systems in terms of economic, political and cultural forces. Emphasizes ethical, sustainable food production agriculture.

AGHE 78 — Animal Science Field Work  4 Units
75 to 150 hours lab
Prerequisite: AGHE 73 and completion of the Registered Veterinary Technology Program
Surveys the world's food producing systems in terms of economic, political and cultural forces. Emphasizes ethical, sustainable food production agriculture.

AGHE 80 — Veterinary Assistant  3 Units
54 hours lecture
Prerequisite: AGHE 65 and completion of the Registered Veterinary Technology program.
Prepares students for national and state veterinary technician registration examinations. Includes exposure to the types of questions encountered in registration examinations, question analysis strategies, and review of important anatomical, physiological, and nursing concepts.

AGHE 81 — Veterinary Assistant  3 Units
54 hours lecture
Prerequisite: AGHE 65 and completion of the Registered Veterinary Technology program.
Prepares students for national and state veterinary technician registration examinations. Includes exposure to the types of questions encountered in registration examinations, question analysis strategies, and review of important anatomical, physiological, and nursing concepts.

AGHE 82 — Veterinary Assistant  3 Units
54 hours lecture
Prerequisite: AGHE 65 and completion of the Registered Veterinary Technology program.
Prepares students for national and state veterinary technician registration examinations. Includes exposure to the types of questions encountered in registration examinations, question analysis strategies, and review of important anatomical, physiological, and nursing concepts.

AGHE 83A — Work Experience in Animal Health  1 to 2 Units
Degree Applicable
(May be taken for Pass/No Pass only)
75 to 150 hours lab
Prerequisite: AGAN 51 and Compliance with Work Experience regulations as designated in the College Catalog
This course is designed to provide Registered Veterinary Technician majors with actual on-the-job experience at an approved work station which is related to classroom instruction. A minimum of 75 paid clock hours or 60 non-paid clock hours per semester is required for each one unit of credit. It is recommended that the hours per week are equally distributed throughout the semester. Instructor approval required.

AGHE 84A — Applied Animal Health Procedures  1 Unit
Degree Applicable
(May be taken for Pass/No Pass only)
54 hours lab
Prerequisite: Formal Admittance to the Registered Veterinary Technology Program
A field study course that emphasizes practical experience in applied clinical procedures and techniques, including treatments, preventive health care and minor surgical procedures with school owned domestic farm animals. Experiences with animals will vary due to seasonal changes and different husbandry practices during fall and spring.

AGHE 84B — Applied Animal Health Procedures  1 Unit
Degree Applicable
54 hours lab
Prerequisite: Formal Admittance to the Registered Veterinary Technology Program
A field study course that emphasizes practical experience in applied clinical procedures and techniques, including treatments, preventive health care and minor surgical procedures with school owned domestic farm animals. Experiences with animals will vary due to seasonal changes and different husbandry practices during fall and spring.

AGHE 85 — Seminar in Registered Veterinary Technology  1 Unit
Degree Applicable
18 hours lecture
Prerequisite: AGHE 60 and completion of the Registered Veterinary Technology program.
Prepares students for national and state veterinary technician registration examinations. Includes exposure to the types of questions encountered in registration examinations, question analysis strategies, and review of important anatomical, physiological, and nursing concepts.

AGHE 86 — Anatomy and Physiology of Domestic Animals  4 Units
54 hours lecture
54 hours lab
Advisory: BIOL 1
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 87 — Veterinary Assistant  3 Units
54 hours lecture
Prerequisite: AGHE 65 and completion of the Registered Veterinary Technology program.
Prepares students for national and state veterinary technician registration examinations. Includes exposure to the types of questions encountered in registration examinations, question analysis strategies, and review of important anatomical, physiological, and nursing concepts.

AGHE 88 — Veterinary Assistant  3 Units
54 hours lecture
Prerequisite: AGHE 65 and completion of the Registered Veterinary Technology program.
Prepares students for national and state veterinary technician registration examinations. Includes exposure to the types of questions encountered in registration examinations, question analysis strategies, and review of important anatomical, physiological, and nursing concepts.

AGHE 89 — Veterinary Assistant  3 Units
54 hours lecture
Prerequisite: AGHE 65 and completion of the Registered Veterinary Technology program.
Prepares students for national and state veterinary technician registration examinations. Includes exposure to the types of questions encountered in registration examinations, question analysis strategies, and review of important anatomical, physiological, and nursing concepts.

AGHE 90 — Veterinary Assistant  3 Units
54 hours lecture
Prerequisite: AGHE 65 and completion of the Registered Veterinary Technology program.
Prepares students for national and state veterinary technician registration examinations. Includes exposure to the types of questions encountered in registration examinations, question analysis strategies, and review of important anatomical, physiological, and nursing concepts.

AGHE 91 — Veterinary Assistant  3 Units
54 hours lecture
Prerequisite: AGHE 65 and completion of the Registered Veterinary Technology program.
Prepares students for national and state veterinary technician registration examinations. Includes exposure to the types of questions encountered in registration examinations, question analysis strategies, and review of important anatomical, physiological, and nursing concepts.

AGHE 92 — Veterinary Assistant  3 Units
54 hours lecture
Prerequisite: AGHE 65 and completion of the Registered Veterinary Technology program.
Prepares students for national and state veterinary technician registration examinations. Includes exposure to the types of questions encountered in registration examinations, question analysis strategies, and review of important anatomical, physiological, and nursing concepts.

AGHE 93 — Veterinary Assistant  3 Units
54 hours lecture
Prerequisite: AGHE 65 and completion of the Registered Veterinary Technology program.
Prepares students for national and state veterinary technician registration examinations. Includes exposure to the types of questions encountered in registration examinations, question analysis strategies, and review of important anatomical, physiological, and nursing concepts.

AGHE 94 — Veterinary Assistant  3 Units
54 hours lecture
Prerequisite: AGHE 65 and completion of the Registered Veterinary Technology program.
Prepares students for national and state veterinary technician registration examinations. Includes exposure to the types of questions encountered in registration examinations, question analysis strategies, and review of important anatomical, physiological, and nursing concepts.

AGHE 95 — Veterinary Assistant  3 Units
54 hours lecture
Prerequisite: AGHE 65 and completion of the Registered Veterinary Technology program.
Prepares students for national and state veterinary technician registration examinations. Includes exposure to the types of questions encountered in registration examinations, question analysis strategies, and review of important anatomical, physiological, and nursing concepts.

AGHE 96 — Veterinary Assistant  3 Units
54 hours lecture
Prerequisite: AGHE 65 and completion of the Registered Veterinary Technology program.
Prepares students for national and state veterinary technician registration examinations. Includes exposure to the types of questions encountered in registration examinations, question analysis strategies, and review of important anatomical, physiological, and nursing concepts.

AGHE 97 — Veterinary Assistant  3 Units
54 hours lecture
Prerequisite: AGHE 65 and completion of the Registered Veterinary Technology program.
Prepares students for national and state veterinary technician registration examinations. Includes exposure to the types of questions encountered in registration examinations, question analysis strategies, and review of important anatomical, physiological, and nursing concepts.

AGHE 98 — Veterinary Assistant  3 Units
54 hours lecture
Prerequisite: AGHE 65 and completion of the Registered Veterinary Technology program.
Prepares students for national and state veterinary technician registration examinations. Includes exposure to the types of questions encountered in registration examinations, question analysis strategies, and review of important anatomical, physiological, and nursing concepts.

AGHE 99 — Veterinary Assistant  3 Units
54 hours lecture
Prerequisite: AGHE 65 and completion of the Registered Veterinary Technology program.
Prepares students for national and state veterinary technician registration examinations. Includes exposure to the types of questions encountered in registration examinations, question analysis strategies, and review of important anatomical, physiological, and nursing concepts.

AGAG 59 — Work Experience in Agriculture  1 to 4 Units
Degree Applicable
(May be taken for Pass/No Pass only)
75 to 300 hours lab
Prerequisite: Compliance with Work Experience regulations as designated in the College Catalog
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. Instructor approval required.
AGRICULTURE: LIVESTOCK PRODUCTION

- **AGLI 12 — Exotic Animal Management** 3 Units
  36 hours lecture
  Care and management of exotic and alternative livestock species with emphasis on identification, health maintenance, handling techniques, nutrition and reproduction. Includes analysis of industry trends and principal marketing uses of exotic animals.

- **AGLI 14 — Swine Production** 3 Units
  54 hours lecture
  Swine enterprises and the ways and means of entering them. Swine management, including handling, feeding, breeding, farrowing, butchering, and marketing. Practical skills are taught using the college farm.

- **AGLI 16 — Horse Production and Management** 4 Units
  54 hours lecture
  Selection, utilization, and management of the light horse. Emphasis is on evaluation, health care, and handling skills.

- **AGLI 17 — Sheep Production** 3 Units
  54 hours lecture
  Various types of sheep enterprises and the ways and means of entering them. Sheep management, sheep handling, feeding, shearing, breeding, lambing, and marketing. Practical skills are taught on the school farm and sheep farms in the area. Field trips required.

- **AGLI 18 — Horse Ranch Management** 4 Units
  54 hours lecture
  Prerequisite: AGLI 16
  Skills and procedures used in the management of an equine business. Includes business plans and record keeping, staff and financial management, horse care and training, and farm design for a variety of horse operations.

- **AGLI 19 — Horse Hoof Care** 2 Units
  18 hours lecture
  Proper horse hoof care; shoeing, trimming and disease recognition and control.

- **AGLI 20 — Horse Behavior and Training** 2 Units
  18 hours lecture
  Corequisite: AGLI 16
  Breaking and starting young horses. Concentrates on halter training of foals, ground work on yearlings, and green-breaking two-year-olds and up. Includes lunging techniques, driving, and breaking to a saddle. Training in collection, turning, backing, leads, and trailer loading.

- **AGLI 30 — Beef Production** 3 Units
  36 hours lecture
  Principles and practices in the selection and management of feeder, market, and breeding beef cattle. Economics of production, retail product, utilization of farm-grown feeds, and feedlot operation. Field trip required.

- **AGLI 34 — Livestock Judging and Selection** 2 Units
  18 hours lecture
  Study of form and appearance of farm animals as related to their function. Includes judging of breeding and terminal livestock as well as carcass evaluation.

- **AGLI 96 — Animal Sanitation and Disease Control** 3 Units
  54 hours lecture
  Prevention and control of infectious diseases affecting domestic animals, including basic disease concepts, transmission of infectious diseases, principles of sanitation and fundamentals of immunology.

- **AGLI 97 — Artificial Insemination of Livestock** 2 Units
  18 hours lecture
  Theory and application of artificial insemination of domestic animals, including semen evaluation and processing, heat synchronization, and pregnancy diagnosis.

AGRICULTURE: ORNAMENTAL HORTICULTURE

- **AGOR 1 — Horticultural Science** 3 Units
  54 hours lecture
  Horticulture skills and techniques for use in gardening, nursery, and landscape applications. Emphasis on propagation, cultural practices, and the study of plant relationships, structure, growth and development.

- **AGOR 2 — Plant Propagation/Greenhouse Management** 3 Units
  36 hours lecture
  Plant propagation and production practices with emphasis on florists' plants, woody ornamentals and fruits. Commercial techniques include seed propagation, cuttings, grafting and budding, layering, fern sporing and division. Stresses greenhouses and other environmental structures for plant propagation and production.

- **AGOR 4 — Park Management** 3 Units
  54 hours lecture
  Management and operation of municipal park departments. Includes the development of budgets, purchasing, park policies, planning and scheduling.

- **AGOR 5 — Park Facilities** 3 Units
  54 hours lecture
  Management and operation of different types of park facilities. Includes the management of sports fields, recreation centers, campgrounds, aquatic facilities and golf courses.

- **AGOR 13 — Landscape Design** 3 Units
  36 hours lecture
  Fundamentals and implementation of landscape design. Principles of design, the design process, drafting, graphics, site evaluation, landscaping materials, and plant usage. Projects emphasize residential and small commercial sites. Field trips and off-campus assignments required.

- **AGOR 14 — Advanced Landscape Design** 3 Units
  36 hours lecture
  Prerequisite: AGOR 13
  Computer Assisted Design and Drafting (CAD) with applications for landscape horticultural businesses. Includes applied CAD for plan, detail, elevation, and section drawings with exposure to CAD associated databases and plant selection programs.

- **AGOR 15 — Interior Landscaping** 3 Units
  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 physical, biological and chemical pest control principles and practices, including integrated pest management (IPM). Stresses use, safety, equipment, laws, and regulations of pesticides.

AGOR 29 — Ornamental Plants - Herbaceous  3 Units  Degree Applicable, CSU, UC
36 hours lecture
54 hours lab
Identification, growth habits, culture and ornamental use of landscape annuals, biennials, perennials, ferns, indoor plants, groundcovers and vines adapted to climates of California. Plants emphasized will come from the California Association of Nurseries and Garden Centers (CANGC) and California Landscape Contractors Association (CLCA) certification test plant lists. Off campus meetings required.

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 Nurseries and Garden Centers (CANGC) and California Landscape Contractors Association (CLCA) certification test plant lists. Off campus meetings required.

AGOR 32 — Landscaping and Nursery Management  3 Units  Degree Applicable, CSU
36 hours lecture
54 hours lab
Operation and management of wholesale and retail nurseries. Includes site location and layout of areas; greenhouse management; soil mix 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 required.

AGOR 35 — Ornamental Plants for Southwest Climates  3 Units  Degree Applicable, CSU
36 hours lecture
54 hours lab
Identification, growth habits, culture and ornamental use of annuals, perennials, groundcovers, shrubs, trees, cacti, and succulents which are native to California and the Southwest, or drought tolerant in Southern California.

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

AGOR 45 — Soil Science and Management  3 Units  Degree Applicable, CSU, UC
36 hours lecture
54 hours lab
Principles of soil management, including management of air, water, nutrients, organic matter. Study of soil including physical, chemical, and biological properties, classification, derivation, use, function, and management including erosion, moisture retention, structure, cultivation, organic matter, and microbiology as they pertain to optimized plant growth. Laboratory topics include soil type, classification, soil reaction, soil fertility, and physical properties of soil. Laboratory required. Field trips are required.

AGOR 50 — Soil Science and Management  3 Units  Degree Applicable, CSU, UC
36 hours lecture
54 hours lab
Principles of soil management, including management of air, water, nutrients, organic matter. Study of soil including physical, chemical, and biological properties, classification, derivation, use, function, and management including erosion, moisture retention, structure, cultivation, organic matter, and microbiology as they pertain to optimized plant growth. Laboratory topics include soil type, classification, soil reaction, soil fertility, and physical properties of soil. Laboratory required. Field trips are required.

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 agriculture and landscape industry. Includes two- and four-wheel drive tractors, skid loaders, skid steer loaders, backhoes, lawnmowers, edgers, weed eaters, blower vacuums, rotor-tillers, chainsaws, spraying equipment and all-terrain vehicles. Laboratory includes use of this equipment.

AGOR 52 — Hydraulics  3 Units  Degree Applicable, CSU
36 hours lecture
54 hours lab
Operation, maintenance, and repair of hydraulic systems used for agriculture and industrial equipment. Emphasis on pumps, valves, cylinders, flow control, reservoirs, lines, motors, and hydrostatic transmissions.

AGOR 53 — Small Engine Repair I  3 Units  Degree Applicable, CSU
(May be taken for option of letter grade or Pass/No Pass)
36 hours lecture
54 hours lab
Principles and repair of small engines used in landscape, industrial and agricultural applications. Includes repairs of lawnmowers, chainsaws, 2-cycle engines, 4-cycle engines, 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
Prerequisite: AGOR 53
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 riding mowers, generator engines, air compressor engines, 2-cycle and 4-cycle engines, spraying equipment, all-terrain vehicles, and other related gas-powered equipment.

AGOR 55 — Diesel Engine Repair  3 Units  Degree Applicable, CSU
(May be taken for option of letter grade or Pass/No Pass)
36 hours lecture
54 hours lab
Prerequisite: AGOR 53
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 riding mowers, generator engines, air compressor engines, 2-cycle and 4-cycle engines, spraying equipment, all-terrain vehicles, and other related gas-powered equipment.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AGOR 57</td>
<td>Power Train Repair</td>
<td>3</td>
<td>Degree Applicable</td>
<td>Design techniques, sprinkler system components and hydraulic landscape construction. Information covered will be helpful for the laboratory activities.</td>
</tr>
<tr>
<td>AGOR 62</td>
<td>Landscape Irrigation - Design and Installation</td>
<td>3</td>
<td>Degree Applicable, CSU</td>
<td>Design and installation of turf and ornamental irrigation systems.</td>
</tr>
<tr>
<td>AGOR 63</td>
<td>Landscape Irrigation Systems Management</td>
<td>3</td>
<td>Degree Applicable, CSU</td>
<td>Systematic approach to water conservation in landscapes. Repair techniques that will allow a current system to efficiently operate to its initial design.</td>
</tr>
<tr>
<td>AGOR 64</td>
<td>Landscape Irrigation - Drip and Low Volume</td>
<td>3</td>
<td>Degree Applicable</td>
<td>Conservation of water in landscapes by utilization of drip and low-flow irrigation practices.</td>
</tr>
<tr>
<td>AGOR 71</td>
<td>Landscape Construction Fundamentals</td>
<td>3</td>
<td>Degree Applicable, CSU</td>
<td>Construction techniques and tools used in landscaping with construction projects that include surveying techniques, utilities (gas, water, and electricity), woodworking, and masonry.</td>
</tr>
<tr>
<td>AGOR 72</td>
<td>Landscape Hardscape Applications</td>
<td>3</td>
<td>Degree Applicable, CSU</td>
<td>Landscape construction pertaining to hardscape featured in the landscape.</td>
</tr>
<tr>
<td>AGOR 73</td>
<td>Landscaping Laws, Contracting, and Estimating</td>
<td>3</td>
<td>Degree Applicable, CSU</td>
<td>Landscape laws, contracting, and estimating as they pertain to landscape construction.</td>
</tr>
<tr>
<td>AGOR 75</td>
<td>Urban Arboriculture</td>
<td>3</td>
<td>Degree Applicable</td>
<td>Care and management of ornamental trees.</td>
</tr>
<tr>
<td>AGOR 76</td>
<td>Aviculture - Cage and Aviary Birds</td>
<td>3</td>
<td>Degree Applicable</td>
<td>Cage and aviary birds marketed in the wholesale and retail pet trade.</td>
</tr>
<tr>
<td>AGOR 77</td>
<td>Landscape Hardscape Applications</td>
<td>3</td>
<td>Degree Applicable, CSU</td>
<td>Landscape construction pertaining to hardscape featured in the landscape.</td>
</tr>
</tbody>
</table>

Course Descriptions:

- **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. Includes clutches, transmissions, differentials, power take-off units, and final drives used to transmit power on tractors and other outdoor power equipment.

- **AGOR 62 — Landscape Irrigation - Design and Installation**
  - 3 Units
  - Degree Applicable, CSU
  - (May be taken for option of letter grade or Pass/No Pass)
  - 36 hours lecture
  - 54 hours lab
  - Design and installation of turf and ornamental irrigation systems. Special emphasis is given to water conservation incorporating controlled flow technologies.

- **AGOR 63 — Landscape Irrigation Systems Management**
  - 3 Units
  - Degree Applicable, CSU
  - (May be taken for option of letter grade or Pass/No Pass)
  - 36 hours lecture
  - 54 hours lab
  - Systematic approach to water conservation in landscapes. Repair techniques that will allow a current system to efficiently operate to its initial design. Trouble shooting procedures including field testing of valves and controllers. Irrigation efficiency testing will be incorporated to demonstrate proper methods of water audits and system evaluation.

- **AGOR 64 — Landscape Irrigation - Drip and Low 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 landscapes by utilization of drip and low-flow irrigation practices. Design, installation techniques, operation and maintenance of drip and low-flow irrigation systems, including determination of irrigation requirements, selection of emitters and low-flow devices, and uniformity of water distribution. Includes hands-on experience in design and installation techniques.

- **AGOR 71 — Landscape Construction Fundamentals**
  - 3 Units
  - Degree Applicable, CSU
  - (May be taken for option of letter grade or Pass/No Pass)
  - 36 hours lecture
  - 54 hours lab
  - Construction techniques and tools used in landscaping with construction projects that include surveying techniques, utilities (gas, water, and electricity), woodworking, and masonry.

- **AGOR 72 — Landscape Hardscape Applications**
  - 3 Units
  - Degree Applicable, CSU
  - (May be taken for option of letter grade or Pass/No Pass)
  - 36 hours lecture
  - 54 hours lab
  - Landscape construction pertaining to hardscape featured in the landscape. Estimation and installation of fences, walks, planters, patios, lighting, barbecues, gazebos, decks, ponds, spas, fountains and pools. Students will gain hands-on experience in the laboratory activities.

- **AGOR 73 — Landscaping Laws, Contracting, and Estimating**
  - 3 Units
  - Degree Applicable, CSU
  - (May be taken for option of letter grade or Pass/No Pass)
  - 54 hours lecture
  - Landscape laws, contracting, and estimating as they pertain to landscape construction. Information covered will be helpful for the Landscape Contractors (C-27 classification) licensing exam administered by the state of California. Off campus assignments required.

- **AGOR 75 — Urban Arboriculture**
  - 3 Units
  - Degree Applicable
  - (May be taken for option of letter grade or Pass/No Pass)
  - 36 hours lecture
  - 54 hours lab
  - Care and management of ornamental trees. Includes pruning techniques, fruit tree care, bracing, cabling, and pest control. Safe practices in the use of equipment including the use of ropes, chippers, boom trucks, chain saws, and identification and evaluation of common trees. Prepares students for the tree worker and arborist certification exams.

- **AGOR 76 — Aviculture - Cage and Aviary Birds**
  - 3 Units
  - Degree Applicable
  - (May be taken for option of letter grade or Pass/No Pass)
  - 36 hours lecture
  - 54 hours lab
  - Cage and aviary birds marketed in the wholesale and retail pet trade. Identification, nutrition, breeding, disease prevention and control, aviary construction. Psittacines, soft bills, finches, game birds, poultry and ornamental waterfowl.

- **AGOR 77 — Landscape Hardscape Applications**
  - 3 Units
  - Degree Applicable
  - (May be taken for option of letter grade or Pass/No Pass)
  - 36 hours lecture
  - 54 hours lab
  - Landscape construction pertaining to hardscape featured in the landscape. Estimation and installation of fences, walks, planters, patios, lighting, barbecues, gazebos, decks, ponds, spas, fountains and pools. Students will gain hands-on experience in the laboratory activities.
## Course Descriptions

### AIR CONDITIONING AND REFRIGERATION

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AIRC 10</td>
<td>Technical Mathematics in Air</td>
<td>2</td>
<td>Develops skills for designing electrical circuits, and electrical wiring circuits including power supplies, motors, and controls.</td>
</tr>
<tr>
<td>AIRC 11</td>
<td>Welding for Air Conditioning and Refrigeration</td>
<td>2</td>
<td>Fundamentals of welding related to the field of air conditioning and refrigeration with emphasis on the sterile techniques and skills required for joining copper refrigerant lines and the procedures for light fabrication.</td>
</tr>
<tr>
<td>AIRC 12</td>
<td>Air Conditioning Codes and Standards</td>
<td>3</td>
<td>Building codes and standards as they apply to the air conditioning and refrigeration industry. Develops skills necessary to read and interpret building codes and resolve installation and service problems as they apply to the construction industry.</td>
</tr>
<tr>
<td>AIRC 20</td>
<td>Refrigeration Fundamentals</td>
<td>4</td>
<td>Principles of mechanical refrigeration based on the refrigeration cycle and associated mechanical components. Develops skills for interpreting service gauge pressures and sensible temperatures, system dehydration techniques, and the safe handling and containment of refrigerants.</td>
</tr>
<tr>
<td>AIRC 25</td>
<td>Electrical Fundamentals for Air Conditioning and Refrigeration</td>
<td>5</td>
<td>Electrical principles and practices used in air conditioning, refrigeration, and heat pump systems as applied to the development and interpretation of schematics and the sequential approach to wiring circuits including power supplies, motors, and controls. Develops skills for designing electrical circuits, and electrical trouble shooting.</td>
</tr>
</tbody>
</table>

### AIRC 26 — Gas Heating Fundamentals

<table>
<thead>
<tr>
<th>Hours</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>36</td>
<td>Theory, operation, and application of natural gas and propane heating systems used in residential and light commercial heating installations including the properties of fuel gasses, gas combustion, furnace construction, pilot proving devices and ignition systems. Advisory: AIRC 12 and AIRC 25</td>
</tr>
</tbody>
</table>

### AIRC 30 — Heat Load Calculations and Design

<table>
<thead>
<tr>
<th>Hours</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>72</td>
<td>Heat loss and heat gain will be examined, developed and applied to residential dwellings air conditioning systems. Equipment sizing, selection and duct design based on the Heat Load of the structure. Heat Load calculation software will be explored and used to aid in the process. Advisory: AIRC 20 taken prior</td>
</tr>
</tbody>
</table>

### AIRC 31 — Commercial Electrical for Air Conditioning and Refrigeration

<table>
<thead>
<tr>
<th>Hours</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>54</td>
<td>Electrical control of commercial air conditioning and refrigeration equipment emphasizing time clocks, defrost, three phase transformers, three phase motors, Variable Frequency Drives and troubleshooting of three phase systems. Advisory: AIRC 25</td>
</tr>
</tbody>
</table>

### AIRC 32A — Air Properties and Measurement

<table>
<thead>
<tr>
<th>Hours</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>27</td>
<td>Investigates the air-side operating theory and application of comfort cooling systems. This course will broaden the student’s understanding of air conditioning systems by addressing psychrometrics to include the measurement of dry bulb and wet bulb temperatures, relative humidity, dew point temperatures, and sensible and latent heat processes. Advisory: AIRC 20, AIRC 30 taken prior</td>
</tr>
</tbody>
</table>

### AIRC 34 — Advanced Mechanical Refrigeration

<table>
<thead>
<tr>
<th>Hours</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>54</td>
<td>Principles of mechanical air conditioning and refrigeration based on operating characteristics of working equipment and the interpretation of the pressure-enthalpy chart. Technical aspects of mechanical components will be explored to include compressors, metering devices, pressure regulators, capacity controls, and defrost methods. Advisory: AIRC 20</td>
</tr>
</tbody>
</table>

### AIRC 61 — Building Automation Fundamentals

<table>
<thead>
<tr>
<th>Hours</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>36</td>
<td>Basics of commercial HVAC control theory as it applies to electric, pneumatic, and digital control systems. Principles of chiller plant operation, air distribution, Variable Air Volume, constant air systems, and multizone systems. Advisory: AIRC 20, AIRC 25, AIRC 31, AIRC 34, ELEC 11</td>
</tr>
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</table>

### AIRC 63 — Building Control Networks

<table>
<thead>
<tr>
<th>Hours</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>54</td>
<td>Programming HVAC direct digital controllers using line (text) and LonTalk, and proprietary systems. Routers, installation, and troubleshooting will also be studied. Advisory: CISN 11</td>
</tr>
</tbody>
</table>

### AIRC 65 — Building Automation Networks and Programming

<table>
<thead>
<tr>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>18</td>
<td>Principles and practical applications for energy cost reduction and strategies. Emphasis on the use of Building Automation Systems to achieve control over energy costs. Includes theory for sustainable Green Building Technologies with introduction to Energy Star Buildings and LEED programs. Advisory: AIRC 34, AIRC 61, AIRC 63, AIRC 65</td>
</tr>
</tbody>
</table>

### AIRC 67 — Energy Management

<table>
<thead>
<tr>
<th>Hours</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>72</td>
<td>Stresses good programming practices including complete standards including web based applications, BACnet, Ethernet, LonTalk, and proprietary systems. Routers, installation, and troubleshooting will also be studied. Advisory: CISN 11</td>
</tr>
</tbody>
</table>

### AIRC 95 — Work Experience in Air Conditioning and Refrigeration

<table>
<thead>
<tr>
<th>Hours</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>75</td>
<td>Work experience in Air Conditioning and Refrigeration at an approved work site with related classroom instruction. This work experience may be during a regular semester or during a summer session. A minimum of 75 paid clock hours or 60 non-paid clock hours per semester is required for each one unit of credit. It is recommended that the hours per week are equally distributed throughout the semester. Instructor approval required.</td>
</tr>
</tbody>
</table>
**AIR TRAFFIC CONTROL**

- **AIRT 151 — Aircraft Recognition and Performance**  
  3 Units  
  Degree Applicable, CSU  
  54 hours lecture  
  Advisory: AERO 23 or AERO 100  
  Formerly AIRT 41.

  Designed for students who want to become air traffic controllers for the Federal Aviation Administration (FAA). Students will learn to recognize the distinctive features of aircraft, identify types of aircraft, classify aircraft as to FAA category and class, and analyze aircraft for performance characteristics required for air traffic control separation. Commercial Pilot majors are encouraged to take the class as an elective course.

- **AIRT 201 — Terminal Air Traffic Control**  
  3 Units  
  Degree Applicable, CSU  
  54 hours lecture  
  Advisory: AERO 23 or AERO 100 and AIRT 41 or AIRT 151  
  Formerly AIRT 42.

  Designed for students who want to become air traffic controllers for the Federal Aviation Administration (FAA). Students will learn about aircraft operation in the National Airspace System, control tower operations, terminal radar control, radio communication techniques and phraseology, and responding to emergencies.

- **AIRT 201L — Air Traffic Control Laboratory**  
  1 Unit  
  Degree Applicable  
  54 hours lab  
  Advisory: AERO 100  
  Formerly AIRT 51.

  Concepts, procedures, and skills related to air traffic control. Microphone technique, voice control, phraseology, facility and interfacility coordination, strip markings, airport traffic control, weather observing, and control tower functions.

- **AIRT 203 — Enroute Air Traffic Control**  
  3 Units  
  Degree Applicable, CSU  
  54 hours lecture  
  Advisory: AERO 23 or AERO 100 and AIRT 41 or AIRT 151  
  Formerly AIRT 42B.

  Enroute air traffic control operations in the National Airspace System. Includes radar and non-radar separation rules, enroute air traffic control clearances, emergencies and search and rescue, and future air traffic control technologies. This course is designed for students who want to become air traffic controllers for the Federal Aviation Administration (FAA).

- **AIRT 203L — Enroute Radar Laboratory**  
  1 Unit  
  Degree Applicable  
  54 hours lab  
  Advisory: AERO 100  
  Formerly AIRT 55.

- **AIRT 251 — Air Traffic Control Team Skills**  
  1.5 Units  
  Degree Applicable, CSU  
  27 hours lecture  
  Advisory: AIRT 201 or AIRT 42A  
  Formerly AIRT 43.

  Leadership skills for aviation professionals, with emphasis on FAA Crew Resource Management. This course will introduce students to the skills required to work in an aviation group environment. Students will be able to identify personality types and temperaments, analyze skills necessary to manage and improve individual performance, work effectively in the team environment, and recognize human factors that affect air traffic control, identify “threat and error” countermeasures.

- **AIRT 253 — Work Experience in Air Traffic Control**  
  1 Unit  
  Degree Applicable  
  (May be taken for Pass/No Pass only)  
  75 hours lab  
  Prerequisite: Compliance with Work Experience regulations as designated in the College Catalog  
  Formerly AIRT 47.

  On-the-job experience in an approved FAA work station. A minimum of 75 paid clock hours or 60 non-paid clock hours per semester is required for each one unit of credit. It is recommended that the hours per week are equally distributed throughout the semester.

**AIRCRAFT MAINTENANCE TECHNOLOGY**

- **AIRM 65A — Aircraft Powerplant Maintenance**  
  13 Units  
  Degree Applicable, CSU  
  108 hours lecture  
  376 hours lab  
  Formerly AIRM 65A.

  Principles of reciprocating and turbine engines and systems. Approved and required for the Federal Aviation Administration (FAA) certification and Airframe and Aircraft Powerplant Maintenance Technology major.

- **AIRM 65B — Aircraft Powerplant Maintenance**  
  13 Units  
  Degree Applicable, CSU  
  108 hours lecture  
  376 hours lab  
  Prerequisite: AIRM 65A or (AIRM 95A and AIRM 95B and AIRM 96A and AIRM 96B).

  Reciprocating and turbine engine systems and components. Approved and required for the Federal Aviation Administration (FAA) certification and Airframe and Aircraft Powerplant Maintenance Technology major.

- **AIRM 66A — Aircraft Airframe Maintenance Structures**  
  13 Units  
  Degree Applicable, CSU  
  108 hours lecture  
  376 hours lab  
  This course is approved by the Federal Aviation Administration (FAA) and required for all Aircraft Powerplant and Airframe Maintenance Technology majors. Topics span aerodynamics, design theory, construction, inspection, maintenance, repair and alteration of aircraft airframe structures.

- **AIRM 66B — Airframe Maintenance Technology**  
  13 Units  
  Degree Applicable, CSU  
  108 hours lecture  
  376 hours lab  
  Prerequisite: AIRM 66A OR (AIRM 90A and AIRM 90B and AIRM 91A and AIRM 91B).

  Airframe systems and components. Approved and required for the Federal Aviation Administration (FAA) and required airframe certification and the Airframe and Aircraft Powerplant Maintenance Technology major.

- **AIRM 70A — Aircraft Maintenance Electronics**  
  3 Units  
  Degree Applicable  
  36 hours lecture  
  71 hours lab  
  Advisory: AIRM 71.

  Electrical theory, series and parallel circuits, batteries, and electrical measuring instruments. Required for Federal Aviation Administration (FAA) certification.

- **AIRM 70B — Aircraft Maintenance Electronics**  
  3 Units  
  Degree Applicable  
  36 hours lecture  
  71 hours lab  
  Advisory: AIRM 70A and AIRM 71.

  Principles of alternating current electricity with emphasis on components and circuits. Required for FAA certification.
### AIRM 71 — Aviation Maintenance Science 6 Units

<table>
<thead>
<tr>
<th>Hours</th>
<th>Description</th>
<th>Prerequisites</th>
<th>Advisories</th>
</tr>
</thead>
<tbody>
<tr>
<td>108</td>
<td>Federal aviation regulations, interpretation of aircraft drawings, basic physics, technical mathematics, and aircraft weight and balance computations. FAA approved course required of all aircraft powerplant and airframe maintenance technology majors.</td>
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</tr>
</tbody>
</table>

### AIRM 72 — Aircraft Materials and Processes 1.5 Units

<table>
<thead>
<tr>
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<th>Prerequisites</th>
<th>Advisories</th>
</tr>
</thead>
<tbody>
<tr>
<td>18</td>
<td>Additional lab instruction for students lacking Federal Aviation Authority (FAA) mandated hours to complete a training certification</td>
<td></td>
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</tbody>
</table>

### AIRM 73 — Aircraft Welding 1.5 Units

<table>
<thead>
<tr>
<th>Hours</th>
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<th>Prerequisites</th>
<th>Advisories</th>
</tr>
</thead>
<tbody>
<tr>
<td>36</td>
<td>Theory and techniques of gas and inert gas welding used in aircraft construction and repair. Required for Federal Aviation Administration (FAA) airframe and powerplant certification.</td>
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</tr>
</tbody>
</table>

### AIRM 74 — Aircraft Maintenance Technology 2 Units - Work Experience

<table>
<thead>
<tr>
<th>Hours</th>
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<th>Prerequisites</th>
<th>Advisories</th>
</tr>
</thead>
<tbody>
<tr>
<td>18</td>
<td>(May be taken for Pass/No Pass only)</td>
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</tbody>
</table>

### AIRM 80 — Laboratory Studies in Aircraft Maintenance Technology .5 to 1 Unit

<table>
<thead>
<tr>
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<th>Prerequisites</th>
<th>Advisories</th>
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</thead>
<tbody>
<tr>
<td>27 to 54</td>
<td>Additional lab instruction for students lacking Federal Aviation Authority (FAA) mandated hours to complete a training certification, required remediation of program modules or laboratory assignments.</td>
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</tbody>
</table>

### AIRM 90A — Airframe Maintenance Technology 3 Units

<table>
<thead>
<tr>
<th>Hours</th>
<th>Description</th>
<th>Prerequisites</th>
<th>Advisories</th>
</tr>
</thead>
<tbody>
<tr>
<td>36</td>
<td>108 hours lecture</td>
<td>A Federal Aviation Administration (FAA) approved course covering aircraft flight, flight control and construction methods and procedures</td>
<td></td>
</tr>
</tbody>
</table>

### AIRM 90B — Airframe Maintenance Technology: Structure and Design 3 Units

<table>
<thead>
<tr>
<th>Hours</th>
<th>Description</th>
<th>Prerequisites</th>
<th>Advisories</th>
</tr>
</thead>
<tbody>
<tr>
<td>36</td>
<td>108 hours lecture</td>
<td>Aircraft structural designs, station numbers, aviation nomenclature and definitions. Approved by the Federal Aviation Administration (FAA) and required for the Airframe and Aircraft Powerplant Maintenance Technology major.</td>
<td></td>
</tr>
</tbody>
</table>

### AIRM 90C — Aircraft Maintenance Technology: Fire Suppression 3 Units

<table>
<thead>
<tr>
<th>Hours</th>
<th>Description</th>
<th>Prerequisites</th>
<th>Advisories</th>
</tr>
</thead>
<tbody>
<tr>
<td>36</td>
<td>108 hours lecture</td>
<td>Aircraft fire detection and suppression systems. Aircraft inspection requirements and procedures. Approved by the Federal Aviation Administration (FAA) and required for the Airframe and Aircraft Powerplant Maintenance Technology major.</td>
<td></td>
</tr>
</tbody>
</table>

### AIRM 91A — Airframe Maintenance Technology 3 Units

<table>
<thead>
<tr>
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<th>Prerequisites</th>
<th>Advisories</th>
</tr>
</thead>
<tbody>
<tr>
<td>36</td>
<td>108 hours lecture</td>
<td>Aircraft wood structures, coverings, finishes, and maintenance. Approved by the FAA and required for the Airframe and Aircraft Powerplant Maintenance Technology major.</td>
<td></td>
</tr>
</tbody>
</table>

### AIRM 91B — Airframe Maintenance Technology: Aluminum Repair 3 Units

<table>
<thead>
<tr>
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<th>Prerequisites</th>
<th>Advisories</th>
</tr>
</thead>
<tbody>
<tr>
<td>36</td>
<td>108 hours lecture</td>
<td>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>
<td></td>
</tr>
</tbody>
</table>

### AIRM 92A — Airframe Maintenance Technology: Hydraulics and Pneumatics 3 Units

<table>
<thead>
<tr>
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<th>Advisories</th>
</tr>
</thead>
<tbody>
<tr>
<td>36</td>
<td>108 hours lecture</td>
<td>Aircraft hydraulic and pneumatic power systems, landing gear and wheel and brake systems. Approved by the Federal Aviation Administration (FAA) and required for the Airframe and Aircraft Power Plant Maintenance Technology major.</td>
<td></td>
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</tbody>
</table>

### AIRM 92B — Airframe Maintenance Systems 2 3 Units

<table>
<thead>
<tr>
<th>Hours</th>
<th>Description</th>
<th>Prerequisites</th>
<th>Advisories</th>
</tr>
</thead>
<tbody>
<tr>
<td>36</td>
<td>108 hours lecture</td>
<td>Aircraft warning systems, aircraft instrumentation systems and aircraft fuel storage and transfer systems. Approved by the FAA and required for the Aircraft Airframe and Powerplant Maintenance Technology major.</td>
<td></td>
</tr>
</tbody>
</table>

### AIRM 93A — Airframe Maintenance Technology: Systems 3 Units

<table>
<thead>
<tr>
<th>Hours</th>
<th>Description</th>
<th>Prerequisites</th>
<th>Advisories</th>
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<tbody>
<tr>
<td>36</td>
<td>108 hours lecture</td>
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### AIRM 93B — Airframe Maintenance Technology: Systems 3 Units

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<th>Hours</th>
<th>Description</th>
<th>Prerequisites</th>
<th>Advisories</th>
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<tbody>
<tr>
<td>36</td>
<td>108 hours lecture</td>
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### AIRM 95A — Aircraft Powerplant Maintenance Technology 3 Units

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<th>Hours</th>
<th>Description</th>
<th>Prerequisites</th>
<th>Advisories</th>
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</thead>
<tbody>
<tr>
<td>36</td>
<td>108 hours lecture</td>
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### AIRM 95B — Aircraft Powerplant Maintenance Technology: Reciprocating Engines 3 Units

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<thead>
<tr>
<th>Hours</th>
<th>Description</th>
<th>Prerequisites</th>
<th>Advisories</th>
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<tbody>
<tr>
<td>36</td>
<td>108 hours lecture</td>
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### AIRM 96 — Aircraft Powerplant Maintenance Technology 3 Units

<table>
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<tr>
<th>Hours</th>
<th>Description</th>
<th>Prerequisites</th>
<th>Advisories</th>
</tr>
</thead>
<tbody>
<tr>
<td>36</td>
<td>108 hours lecture</td>
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</tbody>
</table>
AIRM 96A — Aircraft Powerplant Maintenance Technology: Turbine Engines 3 Units
Degree Applicable
36 hours lecture
71 hours lab
Prerequisite: (AIRM 95A and AIRM 95B) or AIRM 65B
Aircraft turbine engine history, construction, thrust formulas and turbine engine types. Approved by the Federal Aviation Administration (FAA) and required for the Airframe and Aircraft Powerplant Maintenance Technology Major. Required for FAA certification.

AIRM 96B — Aircraft Powerplant Maintenance Technology: Propellers 3 Units
Degree Applicable
36 hours lecture
71 hours lab
Prerequisite: (AIRM 95A and AIRM 95B) or AIRM 65B
Propeller theory, nomenclature, application, constant speed devices, and propeller controls. Approved by the Federal Aviation Administration (FAA) and required for the Airframe and Aircraft Powerplant Maintenance Technology Major. Required for FAA certification.

AIRM 97A — Aircraft Powerplant Maintenance Technology: Instrumentation 3 Units
Degree Applicable
36 hours lecture
71 hours lab
Prerequisite: (AIRM 95A and AIRM 95B and AIRM 96A) or AIRM 65B
Federal Aviation Administration (FAA) approved course covering instrumentation and smoke and fire detection/suppression systems used in small and large aircraft. Includes engine starting systems and electrical power generating devices.

AIRM 97B — Aircraft Powerplant Maintenance Technology: Fuel Meter Systems 3 Units
Degree Applicable
36 hours lecture
71 hours lab
Prerequisite: AIRM 97A or AIRM 65A
Reciprocating engine and turbine engine fuels, fuel metering devices, and system operation. Approved by the Federal Aviation Administration (FAA) and required for the Airframe and Aircraft Powerplant Maintenance Technology major.

AIRM 98A — Aircraft Powerplant Maintenance Technology: Ignition Systems 3 Units
Degree Applicable
36 hours lecture
71 hours lab
Prerequisite: (AIRM 97A and AIRM 97B) or AIRM 65A
Reciprocating and turbine engine ignition system theory and maintenance. Approved by the FAA and required for the Airframe and Aircraft Powerplant Maintenance Technology major.

AIRM 98B — Aircraft Powerplant Maintenance Technology: Lubricating Systems 3 Units
Degree Applicable
36 hours lecture
71 hours lab
Prerequisite: (AIRM 97A and AIRM 97B and AIRM 98A) or AIRM 65A
Reciprocating and turbine engine lubricants and lubricating systems. Approved by the Federal Aviation Administration (FAA) and required for the Airframe and Aircraft Powerplant Maintenance Technology major.

ALCOHOL DRUG COUNSELING

AD 1 — Alcohol/Drug Dependency 3 Units
Degree Applicable, CSU
54 hours lecture
Presents an overview of alcohol and chemical dependencies and ramifications. Explores the impact these dependencies have upon the individual’s social, psychological, economic, physiological well-being, community and family concerns. Examines the “myths,” images, and stereotypes about substances and substance abusers. Explores various approaches to recovery. Includes familiarization with terms.

AD 2 — Physiological Effects of Alcohol/Drugs 3 Units
Degree Applicable, CSU
54 hours lecture
Examines effects of alcohol and drugs on the human body. Includes tolerance, habituation, cross-tolerance and synergistic effect.

AD 3 — Chemical Dependency: Intervention, Treatment and Recovery 3 Units
Degree Applicable, CSU
54 hours lecture
Examines techniques used in chemical dependency treatment. Analyzes types of treatment programs and the essentials of recovery.

AD 4 — Issues in Domestic Violence 3 Units
Degree Applicable
54 hours lecture
Examines the history, law and psychology of domestic violence; cultural/social aspects; relationship to substance abuse.

AD 5 — Chemical Dependency: Prevention and Education 1.5 Units
Degree Applicable, CSU
27 hours lecture
Reviews and examines drug prevention effectiveness, at both the private and public level. Appraises personal attitudes, past and present, and their influence on societal norms. Evaluates current prevention programs and the necessary steps for developing, funding and managing a program.

AD 6 — Dual Diagnosis 3 Units
Degree Applicable, CSU
54 hours lecture
Overview of the complex interactions of mental disorders and chemical dependency. Reviews and examines the key areas involving dual diagnosis: definition, diagnosis, treatment and aftercare.

AD 8 — Group Process and Leadership 3 Units
Degree Applicable
54 hours lecture
Advisory: AD 1, AD 2, AD 3 taken prior or concurrently
Introduces the theory and practice of group counseling, the group process and dynamics of group interaction.

AD 9 — Family Counseling 3 Units
Degree Applicable
54 hours lecture
Advisory: AD 1, AD 2, AD 3 taken prior and AD 4, AD 5, AD 6 taken prior or concurrently
Introduces the theory and practice of family counseling. Topics include, family systems and dynamics, effects of chemical dependency, and counseling techniques.

AD 10 — Client Record and Documentation 1.5 Units
Degree Applicable
27 hours lecture
Advisory: AD 1, AD 2, AD 3 taken prior and AD 4, AD 5, AD 6 taken prior or concurrently
Documentation methods required by government regulatory bodies in clinical records. Emphasis on biopsychosocial history.

AD 11 — Techniques of Intervention and Referral 3 Units
Degree Applicable
54 hours lecture
Advisory: AD 1, AD 2, AD 3 taken prior and AD 4, AD 5, AD 6 taken prior or concurrently
Practice techniques used for crisis intervention, counseling, intake and referral. Experiential format, allows participants to practice skills in attentive listening, and responding to levels of client communication.
Course Descriptions

AMERICAN LANGUAGE

- AMLA 21S — Accent Reduction 2 Units
  Not Degree Applicable
  (May be taken for option of letter grade or Pass/No Pass)
  36 hours lecture
  Pronunciation and listening for non-native speakers with emphasis on improving articulation, stress and intonation patterns, and listening.

- AMLA 22S — American Language Interpersonal Communication 2 Units
  Not Degree Applicable
  (May be taken for option of letter grade or Pass/No Pass)
  36 hours lecture
  Enhances ability of non-native speakers to communicate in personal and academic situations. Emphasis on grammatical accuracy and sophistication as well as confidence in communication.

- AMLA 23S — American Language Formal Speaking 2 Units
  Not Degree Applicable
  (May be taken for option of letter grade or Pass/No Pass)
  36 hours lecture
  Advisory: Eligibility for AMLA 43W
  Enhances the ability of non-native speakers to listen effectively and speak formally. Emphasis is on note taking, outlining, organizing speeches, and verbal articulation of ideas.

- AMLA 24 — Idiomatic English 2 Units
  Not Degree Applicable
  (May be taken for option of letter grade or Pass/No Pass)
  36 hours lecture
  Advisory: Eligibility for AMLA 42W
  Intermediate course in the study of idiomatic language, including common American idioms and proverbs, as used in everyday language situations.

- AMLA 25 — American Language Casual Speaking 4 Units
  Degree Applicable, CSU
  36 hours lecture
  Advisory: Eligibility for AMLA 43W
  Intermediate oral and written expression of ideas, integrating knowledge and experience in practical application.

- AMLA 26 — American Language Advanced Speaking 4 Units
  Degree Applicable, CSU
  36 hours lecture
  Advisory: Eligibility for AMLA 43W
  Advanced oral and written expression of ideas, integrating knowledge and experience in practical application.

- AMLA 27 — American Language Advanced Casual Speaking 4 Units
  Degree Applicable, CSU
  36 hours lecture
  Advisory: Eligibility for AMLA 43W
  Advanced oral and written expression of ideas, integrating knowledge and experience in practical application.

- AMLA 28 — American Language Advanced Casual Speaking 4 Units
  Degree Applicable, CSU
  36 hours lecture
  Advisory: Eligibility for AMLA 43W
  Advanced oral and written expression of ideas, integrating knowledge and experience in practical application.

- AMLA 29 — American Language Advanced Casual Speaking 4 Units
  Degree Applicable, CSU
  36 hours lecture
  Advisory: Eligibility for AMLA 43W
  Advanced oral and written expression of ideas, integrating knowledge and experience in practical application.

- AMLA 30 — American Language Advanced Casual Speaking 4 Units
  Degree Applicable, CSU
  36 hours lecture
  Advisory: Eligibility for AMLA 43W
  Advanced oral and written expression of ideas, integrating knowledge and experience in practical application.

- AMLA 31R — American Language Intermediate Reading 4 Units
  Degree Applicable, CSU
  72 hours lecture
  Prerequisite: Satisfactory score on appropriate Reading Placement Test or successful completion of noncredit ESL Level 4
  Intermediate reading and vocabulary for non-native speakers.

- AMLA 32R — American Language Basic Reading 4 Units
  Degree Applicable, CSU
  72 hours lecture
  Prerequisite: Satisfactory score on appropriate Reading Placement Test or successful completion of noncredit ESL Level 5, 6, or VESL
  Basic reading and vocabulary for non-native speakers.

- AMLA 33R — American Language Advanced Reading 4 Units
  Degree Applicable, CSU
  72 hours lecture
  Prerequisite: Successful completion of AMLA 31R, or satisfactory score on appropriate Reading Placement Test
  Advanced reading and vocabulary for non-native speakers.

- AMLA 34R — American Language Intermediate Reading 4 Units
  Degree Applicable, CSU
  72 hours lecture
  Prerequisite: Successful completion of AMLA 31R
  Intermediate reading and vocabulary for non-native speakers.

- AMLA 35R — American Language Basic Reading 4 Units
  Degree Applicable, CSU
  72 hours lecture
  Prerequisite: Satisfactory score on appropriate Reading Placement Test
  Basic reading and vocabulary for non-native speakers.

- AMLA 36R — American Language Advanced Reading 4 Units
  Degree Applicable, CSU
  72 hours lecture
  Prerequisite: Satisfactory score on appropriate Reading Placement Test or successful completion of noncredit ESL Level 5, 6, or VESL
  Advanced reading and vocabulary for non-native speakers.

- AMLA 37R — American Language Intermediate Reading 4 Units
  Degree Applicable, CSU
  72 hours lecture
  Prerequisite: Successful completion of AMLA 31R, or satisfactory score on appropriate Reading Placement Test
  Intermediate reading and vocabulary for non-native speakers.

- AMLA 38R — American Language Basic Reading 4 Units
  Degree Applicable, CSU
  72 hours lecture
  Prerequisite: Satisfactory score on appropriate Reading Placement Test
  Basic reading and vocabulary for non-native speakers.

- AMLA 39R — American Language Advanced Reading 4 Units
  Degree Applicable, CSU
  72 hours lecture
  Prerequisite: Successful completion of AMLA 31R, or satisfactory score on appropriate Reading Placement Test
  Advanced reading and vocabulary for non-native speakers.

- AMLA 40R — American Language Intermediate Reading 4 Units
  Degree Applicable, CSU
  72 hours lecture
  Prerequisite: Successful completion of AMLA 31R
  Intermediate reading and vocabulary for non-native speakers.

- AMLA 41W — American Language Basic Writing 4 Units
  Not Degree Applicable
  (May be taken for option of letter grade or Pass/No Pass)
  18 hours lecture
  Advisory: Eligibility for AMLA 42W
  Intermediate work on the mechanics of writing, including the planning and development of ideas, with emphasis on correct usage of English. Practice in present, past, and future verb tenses, and other grammatical structures in writing and speaking.

- AMLA 42W — American Language Intermediate Writing 4 Units
  Not Degree Applicable
  (May be taken for option of letter grade or Pass/No Pass)
  18 hours lecture
  Advisory: AMLA 32R taken prior or concurrently
  Intermediate grammar and writing for non-native speakers.

- AMLA 43W — American Language Advanced Writing 4 Units
  Not Degree Applicable
  (May be taken for option of letter grade or Pass/No Pass)
  72 hours lecture
  Advisory: Successful score on the English Placement Test or successful completion of AMLA 42W
  Advanced grammar and writing for non-native speakers.

- AMLA 44W — American Language Advanced Writing 4 Units
  Not Degree Applicable
  (May be taken for option of letter grade or Pass/No Pass)
  72 hours lecture
  Advisory: AMLA 32R taken prior or concurrently
  Advanced grammar and writing for non-native speakers.

- AMLA 45W — American Language Advanced Writing 4 Units
  Not Degree Applicable
  (May be taken for option of letter grade or Pass/No Pass)
  72 hours lecture
  Advisory: AMLA 32R taken prior or concurrently
  Advanced grammar and writing for non-native speakers.

- AMLA 46W — American Language Advanced Writing 4 Units
  Not Degree Applicable
  (May be taken for option of letter grade or Pass/No Pass)
  72 hours lecture
  Advisory: AMLA 32R taken prior or concurrently
  Advanced grammar and writing for non-native speakers.
ANATOMY AND PHYSIOLOGY

- ANAT 10A — Introductory Human Anatomy 4 Units
  54 hours lecture
  54 hours lab
  Prerequisite: BIOL 1
  Advisory: BIOD 1
  Macroscopic and microscopic structures of the human body. Emphasis on cell structures, skeletal, muscular, respiratory, circulatory, nervous, digestive, excretory, endocrine, and reproductive systems.

- ANAT 10B — Introductory Human Physiology 4 Units
  54 hours lecture
  54 hours lab
  Prerequisite: ANAT 10A or ANAT 35
  Advisory: CHEM 10 or CHEM 40
  Integrated study of the function of and interaction between the skeletal, muscular, respiratory, circulatory, nervous, digestive, excretory (including electrolyte and acid-base balance), endocrine, and reproductive systems (including human genetics and embryology).

- ANAT 35 — Human Anatomy 5 Units
  54 hours lecture
  108 hours lab
  Prerequisite: BIOL 1 or BIOL 4 or BIOL 4H
  Structure of the organ systems at the gross, subgross, and microscopic levels based on human material and dissection of the cat. Designed to serve as an introduction to vertebrate embryology.

- ANAT 36 — Human Physiology 5 Units
  54 hours lecture
  108 hours lab
  Prerequisite: ANAT 35 and CHEM 10 or CHEM 40
  Extensive study of human physiology at the cellular and molecular levels covering muscular, nervous, circulatory, respiratory, renal, digestive, endocrine, and reproductive systems. Includes regulation and integration of organ systems where appropriate.

- ANAT 40A — Human Prosection 2 Units
  108 hours lab
  Prerequisite: ANAT 35
  Techniques for human prosection. Regional exploration of superficial and deep human muscles at the gross level. Anatomy 40A and 40B must be taken in sequence in order to receive credit for college level prosection.

- ANAT 40B — Human Prosection 2 Units
  108 hours lab
  Prerequisite: ANAT 40A
  Techniques for human prosection. Regional exploration of the human organ systems at the gross level with emphasis on the organs, blood vessels and nerves of the body cavities.

- ANAT 99 — Special Projects in Anatomy 2 Units
  Not Degree Applicable, CSU, UC
  36 hours lecture
  Offers selected students recognition for their academic interest in anatomy and the opportunity to explore the discipline of anatomy in greater depth. The content of the course and the methods of study vary from semester to semester and depend on the particular project under consideration. Instructor’s authorization is required to enroll in this course.

ANTHROPOLOGY

- ANTH 1 — Biological Anthropology 3 Units
  54 hours lecture
  Prerequisite: Eligibility for ENGL 68
  Evolutionary biology of primates with particular emphasis on hominid evolution and behavior. The genetic and evolutionary mechanisms underlying human variation, primate field studies, and the hominid paleontological record are stressed.

- ANTH 1H — Biological Anthropology - Honors 3 Units
  54 hours lecture
  Prerequisite: Acceptance into the Honors Program
  Evolutionary biology of primates with particular emphasis on hominid evolution and behavior. The genetic and evolutionary mechanisms underlying human variation, primate field studies, and the hominid paleontological record are stressed. An honors course designed to provide an enriched experience. Students may not receive credit for both ANTH 1 and ANTH 1H.

- ANTH 1L — Biological Anthropology Laboratory 1 Unit
  Degree Applicable, CSU, UC
  54 hours lab
  Prerequisite: ANTH 1 or ANTH 1H (May have been taken previously)
  Scientific study of human evolution. Students will generate and test hypotheses using the techniques and materials of biological anthropology. Includes genetic observations and calculations, osteological techniques and measurements, and primate behavior observations. One field trip to a zoo for primate observation is required.

- ANTH 3 — Archaeology 3 Units
  Degree Applicable, CSU, UC
  (May be taken for option of letter grade or Pass/No Pass)
  54 hours lecture
  Prerequisite: Eligibility for ENGL 1A
  Advisory: READ 90
  Aims, methods and ethics of archaeological research and their application to the archaeological record, in contrast to popular depictions of archaeology. Evolution of culture from the earliest stone toolmakers to the primary civilizations of the Old and New Worlds, emphasizing invention and spread of agriculture and the impact of this change on prehistoric cultures.

- ANTH 5 — Principles of Cultural Anthropology 3 Units
  Degree Applicable, CSU, UC
  54 hours lecture
  The anthropological approach to the study of human behavior from a cross cultural, comparative, and an evolutionary perspective. An exploration into the languages, economics, sociopolitical systems, religions, and world views of diverse world cultures. A technical presentation is stressed as this course is designed for Social Sciences majors.

- ANTH 22 — General Cultural Anthropology 3 Units
  Degree Applicable, CSU, UC
  54 hours lecture
  An introductory course to explore the nature of culture and how cultural anthropologists study cultural phenomena such as language, personality, subsistence, economics, social and political organization, marriage, kinship systems, religion, the arts, and culture change. A substantial amount of case material will be drawn from at least three of the following: African Americans, indigenous peoples of the United States, Asian Americans, Chicano/Latino Americans, and European Americans. This course may meet the cultural diversity requirement at transfer universities.
Course Descriptions

**ANTH 30 — The Native American** 3 Units
Degree Applicable, CSU, UC
54 hours lecture
Prerequisite: Eligibility for ENGL 1A
Advisory: Eligibility for READ 100
Prehistory and history of Native Americans. Overview of the classification system used to organize particular groups into culture areas related to adaptive strategies. Identification of world contributions and contemporary issues for modern Native Americans.

**ANTH 99 — Special Projects in Anthropology** 2 Units
Degree Applicable, CSU
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.

**ARABIC**

**ARAB 1 — Elementary Arabic** 4 Units
Degree Applicable, CSU, UC
72 hours lecture
Intended for students with little or no previous exposure to Arabic. Begins to develop elementary reading, writing, and speaking skills in Modern Standard Arabic. Focuses on mastery of Arabic script, pronunciation, simple grammatical structures, and basic vocabulary, along with an introduction to Arab culture.

**ARAB 2 — Continuing Elementary Arabic** 4 Units
Degree Applicable, CSU, UC
72 hours lecture
Prerequisite: ARAB 1 or equivalent
Continues to develop elementary reading, writing, and speaking skills in Modern Standard Arabic. Focuses on mastery of Arabic script, pronunciation, simple grammatical structures, and basic vocabulary building; introduces short authentic texts. Includes some exposure to Formal Spoken Arabic.

**ARCHITECTURAL TECHNOLOGY**

**ARCH 101 — Design I - Elements of Design** 4 Units
Degree Applicable, CSU, UC
54 hours lecture
54 hours lab
Formerly ARCH 10.
Fundamentals of design and design process. Elements include conceptualization, visualization, form making, presentation, expression, and site analysis of physical, contextual, and cultural aspects of design and/or the urban environment. Portfolio will be produced.

**ARCH 102 — Design II - Architectural Design** 4 Units
Degree Applicable, CSU, UC
54 hours lecture
54 hours lab
Corequisite: ARCH 122 or ARCH 23
Advisory: ARCH 10 and ARCH 11 or ARCH 101 and ARCH 141
Second level architectural design studio with a focus on site analysis, design conceptualization, form making, program development and presentation. Emphasis is on critical thinking and problem solving integrated with the artistic design process. Investigations will stress symbolic expression, aesthetics, craftsmanship, technical skills, vocabulary and physical object making through the design of multi-family residential, institutional and cultural buildings. Field trips are required.

**ARCH 103 — Design III - Environmental Design** 4 Units
Degree Applicable, CSU, UC
54 hours lecture
54 hours lab
Formerly ARCH 11.
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. Field trips required.

**ARCH 104 — Design IV - Constructed Environment** 4 Units
Degree Applicable, CSU, UC
54 hours lecture
54 hours lab
Formerly ARCH 12.
Architectural drawing techniques including graphic standards, scales, orthographic, paraline, and perspective projections. Field trips required.

**ARCH 121 — CADD and Digital Design Media Level I** 4 Units
Degree Applicable, CSU, UC
54 hours lecture
54 hours lab
Formerly ARCH 16.
CADD Level 1 (Computer Aided Design and Drafting) and computer application in architecture, engineering and related fields, including spreadsheet, CAD, and presentation application. Field trips required.

**ARCH 122 — Architectural Presentations** 4 Units
Degree Applicable, CSU
54 hours lecture
54 hours lab
Corequisite: ARCH 21 or ARCH 102
Advisory: ARCH 10, ARCH 11 OR ARCH 101, ARCH 141
Formerly ARCH 23.
Architectural working drawings and construction documents for light frame construction. Field trips required.

**ARCH 123 — Architectural Materials and Specifications** 4 Units
Degree Applicable, CSU
54 hours lecture
54 hours lab
Corequisite: ARCH 122 or ARCH 23
Formerly ARCH 12.
Building materials and specifications used in architecture and construction. Includes a lab component of common building materials. Field trips required.

**ARCH 124 — Architectural CAD and BIM** 3 Units
Degree Applicable, CSU
36 hours lecture
71 hours lab
Advisory: ARCH 141 or ARCH 11
Formerly ARCH 14.
Architectural drawings and construction documents for multi-family residential, institutional, and cultural buildings. Field trips required.

**ARCH 125 — Architectural Drawings and Fabrications** 3 Units
Degree Applicable, CSU
36 hours lecture
71 hours lab
Advisory: ARCH 141 (formerly ARCH 11)
Formerly ARCH 15.
Architectural working drawings and construction documents for light frame construction. Field trips required.

**ARCH 140 — Architectural CAD and BIM** 3 Units
Degree Applicable, CSU
36 hours lecture
71 hours lab
Advisory: ARCH 141 or ARCH 11, or ARCH 121 or ARCH 16
Formerly ARCH 18.
3-D Computer Aided Design and Drafting (CAD) and Building Information Modeling (BIM) for architectural design and design development. Portfolio of 3-D building models and extracted 2-D drawings will be produced. Field trips required.

**ARCH 150 — Architectural CAD and BIM** 3 Units
Degree Applicable, CSU
36 hours lecture
71 hours lab
Advisory: ARCH 141 or ARCH 11
Formerly ARCH 15.
Architectural working drawings and construction documents for light frame construction. Field trips required.

**ARCH 141 — Design Drawing and Communication** 4 Units
Degree Applicable, CSU, UC
54 hours lecture
54 hours lab
Formerly ARCH 11.
Architectural drawing techniques including graphic standards, scales, orthographic, paraline, and perspective projections. Field trips required.

**ARCH 142 — Architectural Materials and Specifications** 4 Units
Degree Applicable, CSU
54 hours lecture
54 hours lab
Advisory: Eligibility for MATH 51
Formerly ARCH 12.
Building materials and specifications used in architecture and construction. Includes a lab component of common building materials. Field trips required.
ARCH 202 — Design IV - Advanced Project 4 Units
· 54 hours lecture
54 hours lab
Advisory: ARCH 23 or ARCH 122 and ARCH 27 or ARCH 201
Formerly ARCH 29.
Fourth level architectural design studio focusing on sustainability, energy efficiency and environmental conservation. Emphasis is on critical thinking and problem solving involving material selection, envelope design, advance space planning and the development of designs from complex building programs. Investigations will stress logical organization, craftsmanship, technical skills, vocabulary and physical object making through the design complex building types. Field trips are required.

ARCH 221 — Architectural Illustration 3 Units
· 36 hours lecture
71 hours lab
Advisory: ARCH 141 or ARCH 11
Formerly ARCH 13.
Architectural and interior illustration including perspective drawing, sketching, shades and shadows, entourage, and color application utilizing various media and development of project portfolio. Field trips required.

ARCH 222 — Advanced Digital Design, Illustration and Animation 3 Units
· 36 hours lecture
71 hours lab
Advisory: ARCH 18 or ARCH 147
Formerly ARCH 28.
Architectural Computer Aided Design (CAD), 3 Dimensional (3-D) illustration, rendering and animation. Virtual walk-through and fly-through videos of interior and exterior 3-D models with photo-realistic materials and lighting will be produced.

ARCH 247 — Architectural CAD Working Drawings 3 Units
· 36 hours lecture
71 hours lab
Advisory: ARCH 15 or ARCH 146, or ARCH 147 or ARCH 18
Formerly ARCH 26.
Architectural Computer Aided Design (CAD) for design development and working drawings. Portfolio of working drawings using Building Information Modeling (BIM) and CAD applications of integrated 3-D and 2-D BIM/CAD models will be produced. Field trips required.

ARCH 250 — World Architecture I 3 Units
Formerly ARCH 31.
Development of world architecture from pre-history to the Middle Ages. Influence of geography, religion, and socio-economic background on architecture from ancient Egypt, Europe through the Middle Ages, and classic civilizations of Asia and the Americas. Field trips required.

ARCH 251 — World Architecture II 3 Units
Formerly ARCH 32.
Development of world architecture from the Renaissance to the present. Influence of environment, religion and socio-economic movements on modern architecture. Field trips required.

ARCH 290 — Architectural Work Experience 1 to 2 Units
(May be taken for Pass/No Pass only)
60 to 150 hours lab
Prerequisite: Compliance with work experience regulations as designated in the College Catalog
Formerly ARCH 89.
Provide actual on-the-job experience in architecture at an approved work site related to classroom instruction. A minimum of 75 paid or 60 non-paid clock hours per semester of supervised work is required for each unit of credit.

ART HISTORY

AHIS 1 — Understanding the Visual Arts 3 Units
Prerequisite: Eligibility for ENGL 68
54 hours lecture
Prerequisites: Acceptance into the Honors Program
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. Field trips may be required.

AHIS 3H — History of Women and Gender in Art - Honors 3 Units
Prerequisites: Acceptance into the Honors Program
Western art from the Prehistoric 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 4H — History of Western Art: Prehistoric Through Gothic - Honors 3 Units
Formerly ARCH 32.
54 hours lecture
Prerequisites: 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. This is an honors course designed to provide an enriched experience. Students may not receive credit for both AHIS 4 (formerly ARTA 4) and AHIS 4H.

AHIS 5 — History of Western Art: Renaissance Through Modern 3 Units
Prerequisites: Acceptance into the Honors Program
Architectural and interior illustration including perspective drawing, sketching, shades and shadows, entourage, and color application utilizing various media and development of project portfolio. Field trips required.

AHIS 5H — History of Western Art: Renaissance Through Modern - Honors 3 Units
Prerequisites: 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. Off-campus assignments may be required.
### COURSE DESCRIPTIONS

<table>
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<tr>
<th>Course Code</th>
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<td>AHIS 6</td>
<td>History of Modern Art</td>
<td>3</td>
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<td>AHIS 6H</td>
<td>History of Modern Art - Honors</td>
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<td>History of Medieval Art and Architecture</td>
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<td>AHIS 10</td>
<td>A History of Greek and Roman Art and Architecture</td>
<td>3</td>
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<td>AHIS 11</td>
<td>History of African, Oceanic, and Native American Art</td>
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<td>AHIS 12</td>
<td>History of Precolumbian Art and Architecture</td>
<td>3</td>
<td>Degree Applicable</td>
<td>CSU, UC</td>
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54 hours lecture

**Music:**

- **AHIS 12 — History of Precolumbian Art and Architecture**
  - 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.

54 hours lecture

**Architecture:**

- **AHIS 14 — Rome: The Ancient City**
  - 3 Units
  - Degree Applicable, CSU, UC
  - 54 hours lecture
  - Advisory: Eligibility for ENGL 68
  - The art and culture of the ancient city of Rome. Major works of art and architecture will be studied in cultural and historical context. The importance of Rome and the Romans to later cultures will be explored.

54 hours lecture

**ANIM 101:**

- **ANIM 101A — Drawing - Gesture and Figure**
  - 3 Units
  - Degree Applicable, CSU
  - 36 hours lecture
  - 71 hours lab
  - Contemporary and traditional approaches to sketching objects and the human figure using drawing techniques for rapid visualization. Emphasizes and develops perceptual and technical skills for capturing basic visual mechanics of motion and gesture.

36 hours lecture

- **ANIM 101B — Figure Gesture - Design**
  - 3 Units
  - Degree Applicable
  - 36 hours lecture
  - 71 hours lab
  - Contemporary and traditional approaches to sketching the human figure using drawing techniques for rapid visualization. Emphasizes and develops personal interpretation, individual expression, and media exploration.

**ANIM 104:**

- **ANIM 104 — Drawing Fundamentals**
  - 3 Units
  - Degree Applicable, CSU
  - 36 hours lecture
  - 71 hours lab
  - Emphasizes creative expression through the use of drawing media and techniques. Emphasis is placed on use of construction, light logic, atmospheric and linear perspective, and gesture directed toward animation. Includes basic drawing skills and methods of achieving compositional integrity through objective analysis and synthesis. May require off-campus assignments.
<table>
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<th>Course Code</th>
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| ANIM 107    | Figure in Motion                                      | 3     | 36 hours lecture 71 hours lab  
Prerequisite: ANIM 101A or ARTD 17A  
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. |
| ANIM 108    | Principles of Animation                               | 3     | 36 hours lecture 71 hours lab  
Prerequisite: ANIM 108  
Principles of drawing for traditional animation concentrating on the mechanics of movement, timing, and emotion for the creation of expressive line drawings. |
| ANIM 109    | Advanced Principles of Animation                       | 3     | 36 hours lecture 71 hours lab  
Prerequisite: ANIM 108  
Advanced principles of animation including mechanics of motion, weighted movement, lip sync and expression applied to story, staging, and character development. Focus will be on the animated film process from script to storyboards, timing sheets, key posing, inbetweening and clean-up through the completion of a final animation. |
| ANIM 110    | Character Development                                 | 1.5   | 18 hours lecture 36 hours lab  
Prerequisite: ANIM 109  
Principles of drawing for traditional animation concentrating on the mechanics of movement, timing, and emotion for the creation of expressive line drawings. |
| ANIM 111    | Storyboarding                                         | 3     | 36 hours lecture 71 hours lab  
Prerequisite: ARTD 15A or ANIM 104  
Storyboarding with emphasis on storytelling, cinematography, drawing, and notation as it relates to the animation industry. |
| ANIM 112    | Animation Background Layout                           | 3     | 36 hours lecture 71 hours lab  
Prerequisite: ANIM 115 or ARTD 16  
Drawing and painting techniques as applied to layout and background design. |
| ANIM 113    | Animation Environment and Level Design                | 3     | 36 hours lecture 71 hours lab  
Prerequisite: ANIM 130  
Prerequisite: ANIM 130 and ANIM 132  
3D digital environment including designing, modeling, texturing, and lighting for computer graphic games, television programs, or films. Includes environment levels for computer graphic games. |
| ANIM 114    | Advanced Principles of Animation                       | 3     | 36 hours lecture 71 hours lab  
Prerequisite: ANIM 130  
Advanced principles of animation including mechanics of motion, weighted movement, lip sync and expression applied to story, staging, and character development. Focus will be on the animated film process from script to storyboards, timing sheets, key posing, inbetweening and clean-up through the completion of a final animation. |
| ANIM 115    | Character Development                                 | 1.5   | 18 hours lecture 36 hours lab  
Prerequisite: ARTD 15A or ANIM 104  
Drawing and development of characters for animation. Observation of details for character attitude, personality, movement, posing, dialogue, mouth positions, body language, and consistent drawing techniques for model sheets will be explored. |
| ANIM 116    | Animation Background Layout                           | 3     | 36 hours lecture 71 hours lab  
Prerequisite: ANIM 115 or ARTD 16  
Drawing and painting techniques as applied to layout and background design. |
| ANIM 117    | Animation Environment and Level Design                | 3     | 36 hours lecture 71 hours lab  
Prerequisite: ANIM 130  
Prerequisite: ANIM 130 and ANIM 100  
3D modeling and texturing methods used in the film and game industries using Maya software. Topics covered include UV unwrapping, Photoshop texture painting, and organic modeling techniques. |
| ANIM 118    | Advanced 3-D Modeling                                  | 3     | 36 hours lecture 71 hours lab  
Prerequisite: ANIM 130  
Advanced 3-D Animation  
3-D character animation principles and procedures used in computer graphics, games, film, and television. Includes walk, run, and action sequences for rigged characters using graph editor. |
| ANIM 119    | Introduction to 3D Modeling                           | 3     | 36 hours lecture 71 hours lab  
Prerequisite: ANIM 130  
Introduction to 3D modeling techniques using animation and gaming industry-standard software. |
| ANIM 120    | Advanced 3-D Modeling                                  | 3     | 36 hours lecture 71 hours lab  
Prerequisite: ANIM 130  
Advanced 3-D Animation  
3-D modeling and texturing methods used in the film and game industries using Maya software. Topics covered include UV unwrapping, Photoshop texture painting, and organic modeling techniques. |
| ANIM 121    | Advanced 3-D Animation                                 | 3     | 36 hours lecture 71 hours lab  
Prerequisite: ANIM 130  
Advanced 3-D Animation  
3-D character animation principles and procedures used in computer graphics, games, film, and television. Includes walk, run, and action sequences for rigged characters using graph editor. |
| ANIM 122    | Animation Environment and Level Design                | 3     | 36 hours lecture 71 hours lab  
Prerequisite: ANIM 130  
Prerequisite: ANIM 130 and ANIM 132  
3D digital environment including designing, modeling, texturing, and lighting for computer graphic games, television programs, or films. Includes environment levels for computer graphic games. |
| ANIM 123    | Advanced Principles of Animation                       | 3     | 36 hours lecture 71 hours lab  
Prerequisite: ANIM 130  
Advanced Principles of Animation  
Introduction to 3D modeling techniques using animation and gaming industry-standard software. |
| ANIM 124    | Animation Background Layout                           | 3     | 36 hours lecture 71 hours lab  
Prerequisite: ANIM 115 or ARTD 16  
Drawing and painting techniques as applied to layout and background design. |
| ANIM 125    | Animation Environment and Level Design                | 3     | 36 hours lecture 71 hours lab  
Prerequisite: ANIM 130  
Prerequisite: ANIM 130 and ANIM 100  
3D modeling and texturing methods used in the film and game industries using Maya software. Topics covered include UV unwrapping, Photoshop texture painting, and organic modeling techniques. |
ANIM 148 — Demo Reel 3 Units
Degree Applicable
36 hours lecture
71 hours lab
Prerequisite: Completion of a minimum of 9 semester units in one of the following programs: Graphic Design, Illustration, Animation, Web Design, Architectural Design, Art, Fashion Merchandising, Industrial Design, Interior Design, or Photography.
Production of a demo reel and portfolio representative of interest, strength and skills for entry into animation fields, professional schools or baccalaureate institutions.

ANIM 149 — 3-D Character Rigging 3 Units
Degree Applicable
36 hours lecture
71 hours lab
Prerequisite: ANIM 145
The principles, techniques and processes of 3D character rigging. Character Rigging is the industry technique of setting up controls on a 3D mesh so that it is animatable. The principles, techniques and processes of 3D character rigging as done primarily for computer games and movie industry will be explored. Building a set of animatable character rigs built using forward kinematics, inverse kinematics, constraints, expressions, blend shapes among other techniques. No prior knowledge of rigging is necessary for this class.

ANIM 151 — Game Prototype Production 3 Units
Degree Applicable
36 hours lecture
71 hours lab
Prerequisite: ANIM 131
Creation of game prototypes based upon specific game features and mechanics. Includes the four main game production cycles of: Designing the game, building the art, technical production, and marketing of the game.

ANIM 167 — Visual Development 3 Units
Degree Applicable, CSU
36 hours lecture
71 hours lab
Prerequisite: ARTC 163 or (ANIM 101A AND ARTD 16)
Development of visual concepts and storytelling for entertainment illustration through use of value, design, color and composition as symbolic tools for communication. Students cannot receive credit for both ARTC 167 and ANIM 167.

ANIM 172 — Motion Graphics, Compositing and Visual Effects 3 Units
Degree Applicable, CSU
36 hours lecture
71 hours lab
Prerequisite: ARTC 100 or ANIM 100
Elements of motion graphics and visual effects including design, typography, animation, compositing, and editing in a production environment (i.e. TV, Film, DVD, or Web). Focuses on using Adobe After Effects and other industry standard software. ANIM 172 and ARTC 272 cannot both be taken for credit.

ANIM 175 — Web Animation With Flash 3 Units
Degree Applicable
36 hours lecture
71 hours lab
Prerequisite: ARTC 70 or ARTC 100
Principles of animation using Adobe Flash for web and multimedia.

ART: BASIC STUDIO ARTS

ARTB 1 — Understanding the Visual Arts 3 Units
Degree Applicable, CSU, UC
54 hours lecture
Prerequisite: Eligibility for ENGL 68
Fundamentals of visual art forms and the role art plays in various historical periods and cultures. Off-campus trips may be required. Students may not earn credit for both ARTB 1 and AHIS 1 or AHIS 1H.

ARTB 14 — Basic Studio Arts 3 Units
Degree Applicable, CSU, UC
36 hours lecture
71 hours lab
Prerequisite: Eligibility for ENGL 68
Creative expression through the visual and applied arts. Painting, drawing, printmaking and sculpture are explored. May require field trips.

ART: GALLERY AND PROFESSIONAL PRACTICES

ARTG 20 — Art, Artists and Society 3 Units
Degree Applicable, CSU
36 hours lecture
71 hours lab
Art and artists studied through class lectures and required field trips. Public art display and exhibition design, with an overview of art movements, styles, symbols, theories and terms.

ART: GRAPHIC DESIGN AND ILLUSTRATION

ARTC 100 — Graphic Design I 3 Units
Degree Applicable, CSU
36 hours lecture
71 hours lab
Advisory: ARTD 15A and ARTD 20
Contemporary graphic design for the commercial art industry. Covers technology, creativity, design, and production. Focuses on using Adobe Photoshop to produce effective commercial art. Additional exposure to Adobe Illustrator and other professional production tools.
COURSE DESCRIPTIONS

ARTC 120 — Graphic Design II 3 Units Degree Applicable, CSU
36 hours lecture
71 hours lab
Prerequisite: ARTC 100 and ARTD 20
Corequisite: ARTD 20 (May be taken previously)
Graphic design concepts, theories, and strategies for the design and layout of printed commercial art. Covers typical printed products including advertisements, flyers, brochures, posters, newsletters, books, and catalogs. Focuses on using Adobe InDesign with additional exposure to Photoshop and Illustrator.

ARTC 140 — Graphic Design III 3 Units Degree Applicable
36 hours lecture
71 hours lab
Prerequisite: ARTC 100 and ARTD 20
Digital illustration, design, skills, and concepts working primarily with vector art. Focuses on using Adobe Illustrator as the primary development tool.

ARTC 160 — Typography 3 Units Degree Applicable, CSU
36 hours lecture
71 hours lab
Prerequisite: ARTC 100 and ARTD 20
Design and use of basic letterforms, type families, characteristics, history, and principles of typography in graphic design. Traditional and digital skills for the art of typeface design, typographic layout, expressive typography, and conceptual thinking.

ARTC 163 — Dynamic Sketching 3 Units Degree Applicable, CSU
36 hours lecture
71 hours lab
Prerequisite: ARTD 15A or ANIM 104
Essential tools to conceptualize, communicate, and express creative ideas dynamically through the art of sketching. Emphasis on problem solving through the sketching process for illustrators, animators, entertainment designers, and fine artists.

ARTC 165 — Illustration 3 Units Degree Applicable, CSU
(May be taken for option of letter grade or Pass/No Pass)
36 hours lecture
71 hours lab
Prerequisite: ARTD 15A or ANIM 104
Corequisite: ARTD 20 or ARTD 21 or ARTD 17A or ANIM 101A (any of which may have been taken previously)
Contemporary illustration with an emphasis on story, editorial, and advertising applications. Proper uses of illustrative rendering techniques in traditional drawing and painting media, paper, and their integration to electronic media. Using professional illustration software, peripherals, and color laser printing, students advance to produce more complex illustrations.

ARTC 167 — Visual Development 3 Units Degree Applicable, CSU
36 hours lecture
71 hours lab
Prerequisite: ARTC 163 or (ANIM 101A AND ARTD 16)
Development of visual concepts and storytelling for entertainment illustration through use of value, design, color and composition as symbolic tools for communication. Students cannot receive credit for both ARTC 167 and ANIM 167.

ARTC 169 — Conceptual Illustration 3 Units Degree Applicable
36 hours lecture
71 hours lab
Prerequisite: ARTD 15A and (ARTD 25A or ARTC 165)
Development of visual concepts and vocabulary to create unique and provocative editorial illustration interpretations based on social, cultural, and political issues. Exploration of personal style and media with emphasis on contemporary art trends.

ARTC 200 — Web Design 3 Units Degree Applicable, CSU
36 hours lecture
71 hours lab
Prerequisite: ARTC 100 and ARTD 20
Design, usability, production and marketing of web sites using contemporary development methods including HTML 5 and CSS 3.

ARTC 220 — Graphic Design IV 3 Units Degree Applicable
36 hours lecture
71 hours lab
Prerequisite: ARTC 100 and ARTD 20
Advisory: ARTC 140
Intermediate to advanced graphic design concepts, composition, photo editing, and photo retouching. Focuses on using Adobe Photoshop as the primary development tool.

ARTC 272 — Motion Graphics, Compositing and Visual Effects 3 Units Degree Applicable, CSU
(May be taken for Pass/No Pass only)
36 hours lecture
71 hours lab
Prerequisite: ARTC 100 or ANIM 100
Elements of motion graphics and visual effects including design, typography, animation, compositing, and editing in a production environment (i.e. TV, Film, DVD, or Web). Focuses on using Adobe After Effects and other industry standard software. ANIM 172 and ARTC 272 cannot both be taken for credit.

ARTC 280 — Commercial Art Studio 3 Units Degree Applicable
36 hours lecture
71 hours lab
Collaborative and interdisciplinary teams will research, design, produce, and deliver commercial art projects. Projects will be “real world” and complex in scope, typically involving clients from the college or community. Professor approval required.

ARTC 290 — Portfolio 3 Units Degree Applicable
36 hours lecture
71 hours lab
Prerequisite: Completion of a minimum of 15 semester units in one of the following programs: Graphic Design, Illustration, Animation and Gaming, Architectural Design, Art, Fashion Merchandising, Industrial Design, Interior Design, or Photography.
Selection, preparation, and assembly of a portfolio, book, or package of works of art, including digital and multimedia formats, that represent individual interests and strengths of students from the visual arts disciplines for use in entering a four-year institution, professional art school, or professional field of choice. Also includes cover letter and resume preparation. The instructor will verify that the prerequisite has been met.
ARTS 22 — Design: Three-Dimensional 3 Units  (C-ID ARTS 101)  Degree Applicable, CSU, UC
36 hours lecture
71 hours lab
Prerequisite: Eligibility for ENGL 68
Develops perception and enhances decision making within the three-dimensional world. Emphasis is placed on concept development and artistic expression utilizing principles and elements of three-dimensional design as well as practical experiments with various media.

ARTS 30A — Ceramics: Beginning I 3 Units  Degree Applicable, CSU, UC
36 hours lecture
71 hours lab
Clay, glazes and firing through lecture and projects in hand building and on the wheel. Emphasis on developing skills, vocabulary, analysis of form, function and aesthetics through projects, oral and written criticism. Field trip required.

ARTS 30B — Ceramics: Beginning II 3 Units  Degree Applicable, CSU, UC
(May be taken for option of letter grade or Pass/No Pass)
36 hours lecture
71 hours lab
Prerequisite: ARTS 30A
Clay, glazes and firing. Emphasis is on repetition of forms, integrating hand building and wheel work for a single object, using up to 5 pounds of clay and developing vocabulary, skill and aesthetics. Field trip required.

ARTS 31 — Ceramics: Advanced Studio 2 Units  Degree Applicable
(May be taken for option of letter grade or Pass/No Pass)
108 hours lab
Prerequisite: ARTS 30B
Advanced study of ceramics with emphasis on integrating form and surface with content and developing a personal style. Loading, firing and unloading kilns included. Field trips required.

ARTS 33 — Ceramics: Hand Construction 3 Units  Degree Applicable, CSU, UC
36 hours lecture
71 hours lab
Clay, glazes and firing through projects that are hand built. Emphasis on developing skills, vocabulary and analysis of form, function, and craftsmanship through projects, discussion, oral and written criticism. Field trip required.

ARTS 34 — The Sculptural Vessel 3 Units  Degree Applicable, CSU, UC
(May be taken for option of letter grade or Pass/No Pass)
18 hours lecture
108 hours lab
Prerequisite: ARTS 30A
Advisory: ARTS 33
Advanced study of the ceramic vessel through the integration of technique, form and content. Field trips required.

ARTS 40A — Sculpture: Beginning 3 Units  Degree Applicable, CSU, UC
36 hours lecture
71 hours lab
Traditional and contemporary approaches to sculpture. Principles of sculptural design, concept development, technique and materials as an integral part of creative expression.

ARTS 40B — Sculpture: Intermediate 3 Units  Degree Applicable, CSU, UC
(May be taken for option of letter grade or Pass/No Pass)
36 hours lecture
71 hours lab
Prerequisite: ARTS 40A
Sculpture projects in subtractive, additive and manipulative approaches.

ARTS 40C — Sculpture: Carving 3 Units  Degree Applicable, CSU, UC
(May be taken for option of letter grade or Pass/No Pass)
36 hours lecture
71 hours lab
Prerequisite: ARTS 40A
Advanced projects in stone or wood carving offering the opportunity to further explore carving using hand, power and pneumatic tools. Emphasis is on individual interpretation.

ARTS 41A — Sculpture: Life 3 Units  Degree Applicable, CSU, UC
36 hours lecture
71 hours lab
Modeling from the human figure with emphasis on composition, gesture, motion and human anatomy as it informs sculptural form. Development of perceptual and technical skills in clay modeling from the human figure.

ARTS 41B — Sculpture: Intermediate Life 3 Units  Degree Applicable, CSU, UC
36 hours lecture
71 hours lab
Prerequisite: ARTS 41A
Sculptural study of the human figure with emphasis on artistic development and stylistic exploration of human anatomy using materials and techniques suitable for the human form.

ARTS 42 — Sculpture: Mold Making 3 Units  Degree Applicable
(May be taken for option of letter grade or Pass/No Pass)
36 hours lecture
71 hours lab
Construction and use of flexible and plaster molds.

ARTS 46A — Sculpture: Special Effects Makeup 3 Units  Degree Applicable
(May be taken for option of letter grade or Pass/No Pass)
36 hours lecture
71 hours lab
Advisory: ARTS 42
Modeling, molding, casting of makeup appliances and masks to the human figure.

ARTS 30A — Ceramics: Beginning I 3 Units  Degree Applicable, CSU, UC
36 hours lecture
71 hours lab
Clay, glazes and firing through lecture and projects in hand building and on the wheel. Emphasis on developing skills, vocabulary, analysis of form, function and aesthetics through projects, oral and written criticism. Field trip required.
ARTD 15A — Drawing: Beginning 3 Units
Degree Applicable
(C-ID ARTS 110) Degree Applicable, CSU, UC
36 hours lecture
71 hours lab
Prerequisite: ARTD 15A
An entry level course emphasizing creative expression through
the use of drawing media. Emphasis is placed on basic drawing
methods and skills, composition and exploration of drawing media.

ARTD 15B — Drawing: Intermediate 3 Units
Degree Applicable, CSU, UC
(C-ID ARTS 205) Degree Applicable, CSU, UC
36 hours lecture
71 hours lab
Prerequisite: ARTD 15A
Drawing course emphasizing perceptual and technical skills to
compose in dry and fluid media. Uses the formal elements and
principles in black, white and color in representational and expres-
sionist styles.

ARTD 16 — Drawing: Perspective 3 Units
Degree Applicable, CSU, UC
(C-ID ARTS 270) Degree Applicable, CSU, UC
36 hours lecture
71 hours lab
Prerequisite: ARTD 15A or ANIM 104
Linear perspective drawing techniques for artists and illustrators.

ARTD 17A — Drawing: Life 3 Units
Degree Applicable, CSU, UC
(C-ID ARTS 200) Degree Applicable, CSU, UC
36 hours lecture
71 hours lab
Prerequisite: ARTD 15A or ANIM 104
Contemporary and traditional approaches to drawing the human
figure. Surface anatomy, proportion, line, light and shadow,
composition, and the expressive potential of the human figure will
be explored.

ARTD 17B — Drawing: Life-Advanced 3 Units
Degree Applicable, CSU, UC
36 hours lecture
71 hours lab
Prerequisite: ARTD 17A
Contemporary and traditional approaches to drawing the human
figure. Anatomy, proportion, line, light and shadow, composition,
personal style and the expressive potential of the human figure
will be explored.

ARTD 19A — Figure Painting 3 Units
Degree Applicable
36 hours lecture
71 hours lab
Prerequisite: ARTD 17A
Painting the draped and nude figure with emphasis on observation
and accurate representation. Through poses of various lengths,
students will learn to depict the human figure using light, color
palettes, compositional devices, and painting techniques.

ARTD 20 — Design: Two-Dimensional 3 Units
Degree Applicable, CSU, UC
(C-ID ARTS 100) Degree Applicable, CSU, UC
36 hours lecture
71 hours lab
Prerequisite: Eligibility for ENGL 68
Two-dimensional composition in achromatic value and color
using the elements and principles of art and design. Emphasis on
vocabulary, theory, and analysis of the formal elements and prin-
ciples as they apply to studio projects in design for all disciplines
of the arts. Off-campus assignments may be required.

ARTD 21 — Design: Color and Composition 3 Units
Degree Applicable, CSU, UC
(C-ID ARTS 270) Degree Applicable, CSU, UC
36 hours lecture
71 hours lab
Prerequisite: ARTD 20
Color theory and relationships of pigment and light. Emphasis
on color harmonies, color matching, the effects of light, color
perception and expression in their application to design and
composition and as used in all disciplines of the arts.

ARTD 23A — Drawing: Head and Hands 1.5 Units
Degree Applicable, CSU, UC
18 hours lecture
36 hours lab
Prerequisite: ARTD 15A or ANIM 104
Contemporary and traditional approaches to constructing images
of the human head and hands. Anatomy, proportion, light logic,
composition, expression and the interaction of form and content.

ARTD 23B — Drawing: Advanced Heads and Hands 1.5 Units
Degree Applicable
18 hours lecture
36 hours lab
Prerequisite: ARTD 23A
Explores contemporary and traditional approaches to drawing the
human head and hands. Emphasizes and develops techniques for
rendering as well as capturing a likeness.

ARTD 23C — Drawing: Expressive Heads and Hands 1.5 Units
Degree Applicable
18 hours lecture
36 hours lab
Prerequisite: ARTD 23A
Explores contemporary and traditional approaches to sketching
the human head and hands. Emphasis is placed on personal inter-
pretation, individual expression, and media exploration.

ARTD 25A — Beginning Painting I 3 Units
Degree Applicable, CSU, UC
(C-ID ARTS 210) Degree Applicable, CSU, UC
36 hours lecture
71 hours lab
Development of basic paint applications in various styles and
subjects focusing on the formal elements of composition, light
logic, and color.

ARTD 25B — Beginning Painting II 3 Units
Degree Applicable, CSU, UC
(C-ID ARTS 270) Degree Applicable, CSU, UC
36 hours lecture
71 hours lab
Prerequisite: ARTD 25A
Creation of large paintings through various styles including mixed
media. Includes conceptualization and communication of ideas
and solving compositional and technical painting problems with a
variety of materials.

ARTD 26A — Intermediate Painting I 3 Units
Degree Applicable, CSU, UC
64 hours lecture
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| **ARTD 26B — Intermediate Painting II** 3 Units  
Degree Applicable, CSU, UC  
36 hours lecture  
71 hours lab  
Prerequisite: ARTD 26A  
Development of a personal style focusing on conceptual issues and art historical influences. Students will conceptualize their work by responding to current and past art movements and popular culture in order to create unique artworks. |
| **ARTD 27 — Painting: Watercolor** 3 Units  
Degree Applicable, CSU, UC  
36 hours lecture  
71 hours lab  
Prerequisite: ARTD 15A OR ARTD 20 OR ARTD 25A  
Watercolor techniques as they relate to compositional and technical processes in painting. Emphasis is placed upon painting skills as related to transparent watercolor methods as well as exploration into opaque and mixed-media approaches. Off-campus assignments may be required. |
| **ARTD 43A — Introduction to Printmaking** 3 Units  
Degree Applicable, CSU, UC  
36 hours lecture  
71 hours lab  
Creative techniques in fine art printmaking using relief and intaglio processes. Emphasis is on developing skills, vocabulary and analysis of its aesthetics, historical context, cultural traditions and craftsmanship through projects, discussion, and oral and written criticism. Field trips may be required. |
| **ARTD 43B — Intermediate Printmaking in Intaglio/Relief** 3 Units  
Degree Applicable, CSU, UC  
(May be taken for option of letter grade or Pass/No Pass)  
36 hours lecture  
71 hours lab  
Prerequisite: ARTD 43A  
Creation of complex editioned color prints in relief and intaglio printmaking from multiple matrices. Focus is on registration of colors, exploration of printing on a variety of substrates, and integration of social and political issues in print design. Field trips may be required. |
| **ARTD 44A — Printmaking: Introduction to Lithography I** 3 Units  
Degree Applicable, CSU, UC  
36 hours lecture  
71 hours lab  
Prerequisite: ARTD 44A  
Focus is on techniques in stone lithography, color registration, and composition issues. Field trips may be required. |
| **ARTD 44B — Printmaking: Intermediate Lithography** 3 Units  
Degree Applicable, CSU, UC  
(May be taken for option of letter grade or Pass/No Pass)  
36 hours lecture  
71 hours lab  
Prerequisite: ARTD 44A  
Single and multi-color composition in lithographic printmaking. Focus is on teaching graphic art concepts to develop visual statements and commentary, vocabulary, technical skills, and analysis of printmaking aesthetics, historical context, cultural traditions and craftsmanship through projects, discussion, and oral and written criticism. Field trips may be required. |
| **ARTD 45A — Printmaking: Introduction to Screenprinting** 3 Units  
Degree Applicable, CSU, UC  
36 hours lecture  
71 hours lab  
Creative techniques in fine art screenprinting printmaking. Emphasis is on developing skills, vocabulary and critical understanding of the different stencil methods used in serigraphy. Screenprinting’s aesthetics, historical context and role in contemporary society are examined through projects, discussion of craftsmanship and content by oral and written discussion and criticism. Field trips may be required. |
| **ARTD 45B — Printmaking: Intermediate Screenprinting** 3 Units  
Degree Applicable, CSU, UC  
(May be taken for option of letter grade or Pass/No Pass)  
36 hours lecture  
71 hours lab  
Prerequisite: ARTD 45A  
Complex multi-color registration in screenprinting. Emphasis is on registration of colors, exploration of printing on a variety of substrates, and integration of social and political issues in print design. Field trips may be required. |
| **ARTD 46A — Printmaking: Introduction to Monotype** 3 Units  
Degree Applicable, CSU, UC  
36 hours lecture  
71 hours lab  
Prerequisite: ARTD 46A  
Painterly printmaking with a focus on monotype, monoprint, and collography printing. Field trips may be required. |
| **ARTD 46B — Intermediate Painterly Printmaking** 3 Units  
Degree Applicable, CSU, UC  
(May be taken for option of letter grade or Pass/No Pass)  
36 hours lecture  
71 hours lab  
Prerequisite: ARTD 46A  
Painterly printmaking techniques such as viscosity etchings and the complexities of simultaneous relief and intaglio printing inherent in collography. Emphasis on achieving personal artistic expression. Field trips may be required. |
| **ARTD 47A — Printmaking: Photo and Alternative Processes** 3 Units  
Degree Applicable, CSU, UC  
36 hours lecture  
71 hours lab  
Contemporary printmaking approaches using a variety of light-sensitive polymer plates, carborundum plates, and other alternatives to classic printmaking processes. Images are prepared by digital and manual means and combine new processes with traditional methods. Emphasis is on teaching graphic art concepts to develop visual statements and commentary, vocabulary, technical skills, and analysis of printmaking aesthetics, historical context, cultural traditions and craftsmanship through projects, discussion, and oral and written criticism. Field trips may be required. |
| **ARTD 99 — Figure Drawing Special Studies** 2 Units  
Degree Applicable, CSU, UC  
108 hours lab  
Prerequisite: ARTD 17A, ANIM 101A, or ARTD 23A  
Specialized studies exploring advanced and complex figure drawing projects with emphasis on the development of an individual creative direction. Content of each course and the methods of study vary from semester to semester. |

**ASTRONOMY**

<table>
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<tr>
<th>Course Description</th>
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| **ASTR 5 — Introduction to Astronomy** 3 Units  
Degree Applicable, CSU, UC  
54 hours lecture  
Prerequisite: Eligibility for ENGL 1A  
An introductory, non-technical survey of the Universe. Fundamental concepts and facts of astronomy. Topics include the origin and evolution of planets, stars, and galaxies; results of space exploration and modern cosmology. Enroll in ASTR 5L to receive laboratory science credit. Field trips may be required. |
| **ASTR 5H — Introduction to Astronomy - Honors** 3 Units  
Degree Applicable, CSU, UC  
54 hours lecture  
Prerequisite: Eligibility for ENGL 1A; Acceptance into the Honors Program  
An honors course designed to provide an enriched experience. An introductory, non-technical survey of the Universe. Fundamental concepts and facts of astronomy. Topics include the origin and evolution of planets, stars, and galaxies; results of space exploration and modern cosmology. Enroll in ASTR 5L to receive laboratory science credit. Field trips may be required. Students may not receive credit for both ASTR 5H and ASTR 5. |
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Degree Applicable, CSU, UC</th>
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</thead>
<tbody>
<tr>
<td>ASTR 5L</td>
<td>Astronomical Observing Laboratory</td>
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<tr>
<td>54 hours lab</td>
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<tr>
<td>Corequisite: ASTR 5 or 5H OR 7 or 8 (May have been taken previously)</td>
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<tr>
<td>Advisory: Math 51</td>
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<tr>
<td>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.</td>
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<tr>
<td>ASTR 7</td>
<td>Geology of the Solar System</td>
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<tr>
<td>54 hours lecture</td>
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<tr>
<td>Geological features and evolution in the solar system. Course surveys techniques used to study cratering, tectonic and volcanic activity, weathering, landsliding, erosion and faulting. Emphasis on solid surfaces other than Earth. Enroll in ASTR 5L to receive lab science credit. Field trips required.</td>
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<tr>
<td>ASTR 8</td>
<td>Introduction to Stars, Galaxies, and the Universe</td>
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<tr>
<td>54 hours lecture</td>
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<tr>
<td>Survey of current astronomical models, structure and evolution of stars, galaxies, and the universe. Field trip(s) required. Enroll in ASTR 5L to receive lab science credit.</td>
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<tr>
<td>ASTR 99</td>
<td>Special Projects in Astronomy</td>
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<tr>
<td>36 hours lecture</td>
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<tr>
<td>In order to offer students recognition for their academic interests and ability, and the opportunity to explore their disciplines to greater depth, the various departments from time to time offer Special Projects courses. The content of each course and the methods of study vary from semester to semester and depend on the particular project under consideration. Student must have instructor’s authorization before enrolling in this class. Students who repeat this course will improve skills through further instruction and practice.</td>
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<tr>
<td>BIOL 2</td>
<td>Plant and Animal Biology</td>
<td>4</td>
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<tr>
<td>54 hours lecture</td>
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<tr>
<td>54 hours lab</td>
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<tr>
<td>Prerequisite: BIOL 1 or BIOL 4; and MATH 71</td>
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<tr>
<td>Organismal biology including concepts in systematics, evolution, plant and animal physiology, ecology, and biotic relationships. Field trips are required.</td>
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<tr>
<td>BIOL 3</td>
<td>Ecology and Field Biology</td>
<td>4</td>
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<tr>
<td>54 hours lecture</td>
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<tr>
<td>54 hours lab</td>
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<tr>
<td>Advisory: Eligibility for ENGL 1A</td>
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<tr>
<td>Identification and ecological relationships of common local plants and animals. Emphasizes evolutionary relationships; ecology including animal behavior, communities, ecosystems, wilderness and wildlife preservation, and population dynamics. Techniques of collecting and preserving. Many laboratory meetings conducted off campus; most trips require walking and/or hiking. Hiking, weekend and other field trips required.</td>
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<tr>
<td>BIOL 4</td>
<td>Biology for Majors</td>
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<tr>
<td>71 hours lecture</td>
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<tr>
<td>71 hours lab</td>
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<tr>
<td>Prerequisite: (CHEM 10 or CHEM 40) AND MATH 71</td>
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<tr>
<td>Principles of biology required for advanced study, including cellular and molecular biology, bioenergetics, genetics, reproduction, evolution, biodiversity, and ecology. General Biology for science majors. One hour discussion group per week. Field trips with extensive hiking required.</td>
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<tr>
<td>BIOL 6</td>
<td>Humans and the Environment</td>
<td>3</td>
<td></td>
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<tr>
<td>54 hours lecture</td>
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<tr>
<td>54 hours lab</td>
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<tr>
<td>Prerequisite: Eligibility for ENGL 68</td>
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<tr>
<td>Ecological concepts to aid understanding the Earth’s environmental crisis and determining courses of action to correct the problem. Emphasis will be placed on specific problems of population, pollution, preservation of wildlife and wilderness, and open space. A historical appraisal of human attitudes toward the land and of the necessity of developing a new land ethic.</td>
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<tr>
<td>BIOL 6L</td>
<td>Humans and the Environment Laboratory</td>
<td>2</td>
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<tr>
<td>108 hours lab</td>
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<tr>
<td>Corequisite: BIOL 6 (may have been taken previously)</td>
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<tr>
<td>Investigates major principles and problems of humans and the environment in the field and in the biological science laboratory. Most laboratory meetings will be conducted at off-campus locations. Some trips will require significant amounts of walking. Course includes one weekend field trip. Taking BIO 6 prior to BIO 6L is highly recommended.</td>
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<tr>
<td>BIOL 8</td>
<td>Cell and Molecular Biology</td>
<td>4</td>
<td></td>
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<tr>
<td>54 hours lecture</td>
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<tr>
<td>54 hours lab</td>
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<tr>
<td>Prerequisite: BIOL 4 or BIOL 4H, and CHEM 50</td>
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<tr>
<td>Cell and molecular biology including eukaryotic cells, eukaryotic organelles, protein structure and functions; DNA and RNA structure and functions; protein synthesis; genome organization in viruses, prokaryotes and eukaryotes; gene cloning; protein and DNA technology and applications of genetic engineering.</td>
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<tr>
<td>BIOL 13</td>
<td>Human Reproduction, Development and Aging</td>
<td>3</td>
<td></td>
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<tr>
<td>54 hours lecture</td>
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<tr>
<td>54 hours lab</td>
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<tr>
<td>Prerequisite: Eligibility for ENGL 68</td>
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<tr>
<td>Human Development, from conception to death. Conception, growth, maturation and aging are studied as a natural continuum, influenced by our biophysical and psychosocial environment. Includes developmental theories and scientific methods used to study development. Field trips to several off-campus sites are required.</td>
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<td>Course Descriptions</td>
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<tr>
<td><strong>BIOL 15 — Human Sexuality</strong></td>
<td>3 Units</td>
<td>Degree Applicable, CSU, UC</td>
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<tr>
<td>54 hours lecture</td>
<td>Prerequisite: Eligibility for ENGL 68</td>
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<tr>
<td>Surveys biological, behavioral, cultural and ethical aspects of human sexuality. Contains mature and sexually explicit content.</td>
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<tr>
<td><strong>BIOL 15H — Human Sexuality - Honors</strong></td>
<td>3 Units</td>
<td>Degree Applicable, CSU, UC</td>
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<tr>
<td>54 hours lecture</td>
<td>Prerequisite: Acceptance into the Honors Program</td>
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<tr>
<td>Surveys biological, behavioral, cultural and ethical aspects of human sexuality. Contains mature and sexually explicit content. An honors course designed to provide an enriched experience. Students may not receive credit for both BIOL 15 and BIOL 15H.</td>
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<tr>
<td><strong>BIOL 17 — Neurobiology and Behavior</strong></td>
<td>3 Units</td>
<td>Degree Applicable, CSU, UC</td>
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<tr>
<td>54 hours lecture</td>
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<td>An integrated analysis of the biological, ecological and evolutionary bases of animal behavior (ethology.) Historical and evolutionary contexts are emphasized through a detailed consideration of the psychobiological, ecological, ontological and sociobiological determinants of animal behavior. Field trip required.</td>
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<tr>
<td><strong>BIOL 20 — Marine Biology</strong></td>
<td>3 Units</td>
<td>Degree Applicable, CSU, UC</td>
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<tr>
<td>54 hours lecture</td>
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<td>Marine environment including the principles of marine science, biology of marine invertebrates and vertebrates, structure and function of marine ecosystems, and human impact on the ocean. Field trip required.</td>
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<tr>
<td><strong>BIOL 21 — Marine Biology Laboratory</strong></td>
<td>1 Unit</td>
<td>Degree Applicable, CSU, UC</td>
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<tr>
<td>54 hours lab</td>
<td>Corequisite: BIOL 20 (may have been taken previously)</td>
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<tr>
<td>An introduction to the field and laboratory aspects of the marine environment. Emphasizes the structure and functional biology of marine invertebrates and vertebrates, ecology of intertidal organisms and ecology of estuaries. Field trips required.</td>
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<tr>
<td><strong>BIOL 24 — Introduction to Public Health</strong></td>
<td>3 Units</td>
<td>Degree Applicable, CSU, UC</td>
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<tr>
<td>54 hours lecture</td>
<td>Prerequisite: Eligibility for ENGL 68</td>
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<tr>
<td>Public health concepts and practice by examining the philosophy, purpose, history, organization, function, tools, activities and outcomes of public health practice at the global, national, state, and community levels. Instruction prepares students to identify and assess important national and international problems and ethical issues facing public health today.</td>
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<tr>
<td><strong>BIOL 25 — Conservation Biology</strong></td>
<td>3 Units</td>
<td>Degree Applicable, CSU, UC</td>
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<tr>
<td>54 hours lecture</td>
<td>Prerequisite: Eligibility for ENGL 1A</td>
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<tr>
<td>Concepts of conservation biology for natural resources, including biogeography, biodiversity and extinction, environmental law, public lands, and conservation organizations. Emphasis on strategies important to addressing biological conservation and sustainable management of natural and managed ecosystems. A field trip is required.</td>
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<tr>
<td><strong>BIOL 34 — Fundamentals of Genetics</strong></td>
<td>3 Units</td>
<td>Degree Applicable, CSU, UC</td>
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<tr>
<td>54 hours lecture</td>
<td>Prerequisite: BIOL 4 or BIOL 4H</td>
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<tr>
<td>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.</td>
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<tr>
<td><strong>BIOL 34L — Fundamentals of Genetics Lab</strong></td>
<td>1 Unit</td>
<td>Degree Applicable, CSU, UC</td>
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<tr>
<td>54 hours lab</td>
<td>Corequisite: BIOL 34 (May have been taken previously)</td>
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<tr>
<td>Experiments and problem solving in genetics including Mendelian Genetics, linkage and recombination, cell division, mutation, molecular genetics including use of PCR and electrophoresis, population genetics, and bioinformatics.</td>
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<tr>
<td><strong>BIOL 50 — Biology Basic Skills</strong></td>
<td>.5 Unit</td>
<td>Not Degree Applicable</td>
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<td>(May be taken for Pass/No Pass only)</td>
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<tr>
<td>9 hours lecture</td>
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<tr>
<td>Basic skills needed for students to succeed in biological science classes. Topics include a contrast of the academic demands of science to non-science disciplines, preparation for biological laboratory experiences as well as lectures, development of personal study plan to manage the large volume of information, interpretation of biological graphs and diagrams, introduction to common Latin and Greek words to build vocabulary, use of memorization techniques, application of test-taking strategies for biological exams, especially lab 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.</td>
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<tr>
<td><strong>BIOL 99A — Special Projects in Biology</strong></td>
<td>1 to 2 Units</td>
<td>Degree Applicable, CSU</td>
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<tr>
<td>18 to 36 hours lecture</td>
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<td>In order to offer students recognition for their academic interests and ability and the opportunity to explore their disciplines to greater depth, the various departments from time to time offer Special Projects courses. The content of each course and the methods of study vary from semester to semester and depend on the particular project under consideration. Students must have instructor’s authorization before enrolling in this course.</td>
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<td><strong>BTNY 3 — Plant Structures, Functions, and Diversity</strong></td>
<td>5 Units</td>
<td>Degree Applicable, CSU, UC</td>
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<tr>
<td>54 hours lecture</td>
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<tr>
<td>108 hours lab</td>
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<tr>
<td>Advisory: BIOL 1 or BIOL 4 and eligibility for ENGL 1A</td>
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<tr>
<td>Structures, functions, and diversity of plants, fungi, and algae. Includes comparative morphology and phylogenetic relationships of organisms from bacteria to angiosperms with an emphasis on ethnobotany, evolution, classification, ecology and conservation. Several laboratory meetings are mandatory field trips, conducted off-campus, and students provide their own transportation.</td>
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<td><strong>BUSA 7 — Principles of Accounting - Financial</strong></td>
<td>5 Units</td>
<td>Degree Applicable, CSU, UC</td>
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<td>(C-ID ACCT 110)</td>
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<tr>
<td>90 hours lecture</td>
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<tr>
<td>Prerequisite: BUSA 11 or eligibility for MATH 51</td>
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<tr>
<td>Advisory: Eligibility for ENGL 1A</td>
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<tr>
<td>Financial accounting required of Business Administration and Accounting majors. Defines financial accounting and its relevance to business decision makers, accounting concepts and techniques, analysis and recording of financial transactions, and preparation, analysis and interpretation of financial statements focusing on application of generally accepted accounting practices. Includes asset, liability, and equity valuation, revenue and expense recognition, cash flow, internal controls, ethics, and financial statement analysis. General Ledger Accounting Software program is integrated throughout and used to complete various homework assignments.</td>
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</tbody>
</table>
The balance sheet and income statement. Emphasis is placed on cost allocation, inventory management, capital budgeting, and skills and techniques of English, as applied to business situations, transfer pricing.

Prerequisite: BUSA 8

BUSA 8 — Principles of Accounting - Managerial 5 Units (C-ID ACCT 120) Degree Applicable, CSU, UC
90 hours lecture
Prerequisite: BUSA 7
Managerial accounting concepts and principles. Includes the role of managerial accounting, cost management concepts, cost behavior and relevant costs, job order and process costing, cost-volume-profit analysis, absorption and variable costing, profit planning and budgeting, standard costing, and flexible budgeting, responsibility accounting and segment reporting, capital budgeting decisions, activity based costing, and cost management for just in time environments. Excel spreadsheet software is used to solve accounting problems or decision making in business.

Prerequisite: BUSA 7 or BUSA 72

BUSA 7 — Payroll and Tax Accounting 3 Units Not Degree Applicable
54 hours lecture
Prerequisite: Eligibility for BUSA 11
On the job payroll accounting. Surveys the various tax procedures required by the employer and employee in filing the correct forms for Social Security, federal, and state income taxes and their reconciliation. Laws related to Worker’s Compensation, State Disability Benefits and Fair Employment Practices are discussed.

Prerequisite: BUSA 8 or eligibility for MATH 50

BUSA 52 — Intermediate Accounting 4.5 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 and pricing methods, cost allocation, inventory management, capital budgeting, and transfer pricing.

Prerequisite: BUSA 7 or BUSA 72

BUSA 76 — Using Microcomputers in Managerial Accounting 1 Unit Degree Applicable
18 hours lecture
Prerequisite: BUSA 7 or BUSA 72
Analysis of financial data and preparation of managerial accounting reports using Excel software. Development of what-if formulas to be used as an aid in decision-making. Includes manufacturing and consolidation worksheets, financial statement analysis, and statement of cash flows.

Prerequisite: Compliance with Work Experience regulations as designated in the College Catalog

Advisory: BUSA 7 or BUSA 72

BUSA 81 — Work Experience in Accounting 1 to 4 Units Degree Applicable
(May be taken for Pass/No Pass only)
75 to 300 hours lab
Prerequisite: Compliance with Work Experience regulations as designated in the College Catalog

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.

BUSINESS: BUSINESS COMMUNICATIONS

BUSO 25 — Business Communications 3 Units Degree Applicable
54 hours lecture
Prerequisite: Eligibility for ENGL 68
Skills and techniques of English, as applied to business situations, with emphasis on effective document structure.

Prerequisite: ENGL 1A

BUSO 5 — Business English 3 Units Degree Applicable
54 hours lecture
Prerequisite: Eligibility for ENGL 68
Skills and techniques of English, as applied to business situations, with emphasis on effective document structure.

Prerequisite: BUSO 5

BUSO 25 — Business Communications 3 Units (C-ID BUS 115) 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 practicing oral skills as applied to job interviews and business reports.
Course Descriptions

BUSC 26 — Oral Communications for Business 3 Units
(May be taken for option of letter grade or Pass/No Pass)
54 hours lecture
Oral communication used in business situations such as training
sessions, presentations, professional discussions, and telephone
interactions.

BUSC 1A — Principles of Economics - Macroeconomics 3 Units
(C-ID ECON 202) Degree Applicable, CSU, UC
54 hours lecture
Prerequisite: Eligibility for ENGL 1A, and successful completion of
MATH 71 or MATH 71B or MATH 71X
Principles of aggregate economic analysis; economic cycles in-
cluding recession, unemployment, inflation and economic growth;
national income accounts; money and financial institutions; mon-
tary and fiscal policy; alternative economic viewpoint; budget
deficits and public debts; international trade and finance.

BUSC 1AH — Principles of Economics - Macroeconomics - Honors
3 Units
(C-ID ECON 202) Degree Applicable, CSU, UC
54 hours lecture
Prerequisite: Acceptance into the Honors Program and MATH 71, or
MATH 71B, or MATH 71X
Principles of aggregate economic analysis; economic cycles
including recession, unemployment, inflation and economic
growth; national income accounts; money and financial in-
titutions; 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
(C-ID ECON 201) 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 of
supply and demand, consumer’s behavior, cost theory and output
determination under various market structures, factor markets,
public choice, income distribution, externalities and government
regulation, and comparative economic systems.

BUSC 1BH — Principles of Economics - Microeconomics - Honors
3 Units
(C-ID ECON 201) 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 of
supply and demand, consumer’s behavior, cost theory and output
determination under various market structures, factor markets,
public choice, income distribution, externalities and government
regulation, and comparative economic systems. This is an honors
course designed to provide an enriched experience. Students may
not receive credit for both BUSC 1B and BUSC 1BH.

BUSC 17 — Applied Business Statistics 3 Units
Degree Applicable, CSU, UC
54 hours lecture
Prerequisite: MATH 71
Statistical reasoning and application of primary statistical tech-
niques used in solving managerial problems. Topics include col-
lection and interpretation of data, measures of central tendency
and dispersion, probability distributions, sampling and estimation,
hypothesis testing, analysis of variance, linear regression and
correlation and index numbers.

BUSC 18 — Business Law 3 Units
(C-ID BUS 125) Degree Applicable, CSU, UC
54 hours lecture
Prerequisite: Eligibility for ENGL 68
Principles of business law emphasizing legal setting of business,
nature of the law and court procedures, principles of contract
law, sales of goods under the Uniform Commercial Code, torts,
ethics, the U.S. Constitution, and criminal law.

BUSC 18H — Business Law - Honors 3 Units
(C-ID BUS 125) Degree Applicable, CSU, UC
54 hours lecture
Prerequisite: Acceptance into the Honors Program
Principles of business law emphasizing legal setting of business,
nature of the law and court procedures, principles of contract
law, sales of goods under the Uniform Commercial Code, torts,
ethics, the U.S. Constitution, and criminal law. An honors course
designed to provide an enriched experience. Students may not
receive credit for both BUSC 18 and BUSC 18H.

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 ethi-

cal 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.

BUSL 100 — Everyday Law 3 Units
Degree Applicable, CSU, UC
54 hours lecture
Prerequisite: Eligibility for ENGL 1A
Practical aspects of current U.S. law, including the court system
and civil procedures, the U.S. Constitution, legal ethics, tort law,
criminal law and procedures, contracts, real estate law, family
law, and careers in law. Required for 2+2+3 articulation.

BUSL 19 — Advanced Business Law 3 Units
Degree Applicable, CSU, UC
54 hours lecture
Advisory: BUSO 5 or eligibility for ENGL 68
Business and its functions, background, development, organiza-

tion, and opportunities. Business terms, current trends, methods,
contemporary and future problems, and current business prac-
tices are covered.

BUSL 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
54 hours lecture
Advisory: Eligibility for ENGL 68 or BUSO 5
International business environment with a global perspective. Introduces global viewpoints across the full spectrum of business functions, including, but not limited to: accounting, finance, human resources, management, operations, production, purchasing, and strategic planning.

BUSM 52 — Principles of Exporting and Importing 3 Units
54 hours lecture
Advisory: Eligibility for ENGL 68 or BUSO 5
Practical information needed to participate in activities related to the exporting and importing of goods and services. Includes vocabulary, acronyms and information needed for an understanding of and participating in the exporting and importing of goods and services.

BUSM 60 — Human Relations in Business 3 Units
54 hours lecture
Inter-disciplinary study of how people work and relate at the individual, group and organizational level. Topics include motivation, teamwork, leadership skill and how to handle organizational change.

BUSM 61 — Business Organization and Management 3 Units
54 hours lecture
Advisory: BUSM 20
Functions of management, management concepts, planning, organizing, staffing and controlling. Theories of management, lines of authority, functions of departments, and the importance of policies, procedures, and controls.

BUSM 62 — Human Resource Management 3 Units
54 hours lecture
Direction of people including guidance, control supervisory problems, training, job analysis interviewing, testing, rating, and other functions involving human resources. Designed to improve the overall understanding of the relationship between the individual and the business organization.

BUSM 66 — Small Business Management 3 Units
54 hours lecture
Organizing, starting, and operating a small business enterprise. Emphasis on entrepreneurial applications in a small business environment.

BUSM 81 — Work Experience in Business 1 to 4 Units
(May be taken for Pass/No Pass only)
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
(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 solutions in an actual business situation.

BUSINESS: PARALEGAL

PLGL 30 — Introduction to Paralegal/Legal 3 Units
54 hours lecture
Prerequisite: Eligibility for ENGL 1A
Federal and state legal systems, the relationship of paralegals to attorneys, legal writing and research, investigation of claims, and legal ethics for paralegals.

PLGL 31A — Legal Analysis and Writing 3 Units
54 hours lecture
Corequisite: PLGL 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
54 hours lecture
Prerequisite: PLGL 30 and PLGL 31A
Preparation of research memoranda, trial briefs, appellate briefs and other paralegal documents.

PLGL 33A — Civil Procedure I 3 Units
54 hours lecture
Corequisite: PLGL 30 (May have been taken previously)
Analysis of the pretrial procedural steps to litigating a cause of action. Examines the concepts of jurisdiction, venue, parties to the action, summons, default judgments, and pleadings.

PLGL 33B — Civil Procedure II 3 Units
54 hours lecture
Prerequisite: PLGL 33A
Preparing for litigation. Includes discovery, preparation of law and motion documents, remedies, summary judgments, motions to dismiss, settlements, and arbitration.

PLGL 35A — Law Office Procedures 3 Units
54 hours lecture
Corequisite: PLGL 30 (may have been taken previously)
Examines procedures utilized by a paralegal in a law office. Court systems, preparation and filing of legal papers and court documents, and drafting specialized documents in such areas as estate planning, real estate, divorce, unlawful detainer, adoption, corporations, conservatorships and guardianships.

PLGL 35B — Automated Law Office Procedures 3 Units
54 hours lecture
Prerequisite: PLGL 30 and PLGL 35A
Advisory: CISB 15
Use of the personal computer for special purposes in the law office; includes the drafting of pleadings, document control, preparation of billing, law office and case load management, and tax reports.

PLGL 36 — Paralegal Internship 1 Unit
(May be taken for Pass/No Pass only)
75 hours lab
Prerequisite: PLGL 31A, PLGL 33A, and PLGL 35A
Corequisite: PLGL 31B, PLGL 33B, PLGL 35B, PLGL 37, PLGL 39 (may have been taken previously)
Designed to provide the student with actual on-the-job experience in the paralegal profession which relates to student’s classroom based learning. Placement is not guaranteed but assistance is provided by the paralegal faculty. A minimum of five hours per week of supervised work (minimum 75 paid clock hours or 60 non-paid clock hours per semester) is required.

PLGL 37 — Tort Law 3 Units
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

[Course Descriptions] 

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
<th>Prerequisites/Co-requisites</th>
<th>Lecture Hours</th>
<th>Transferable Credit</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>PLGL 38</strong> — Employment and Ethical Issues...</td>
<td>2</td>
<td>Degree Applicable</td>
<td>36</td>
<td></td>
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<tr>
<td><strong>PLGL 39</strong> — Contract Law</td>
<td>3</td>
<td>Degree Applicable</td>
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<tr>
<td><strong>PLGL 40</strong> — Landlord-Tenant Law</td>
<td>3</td>
<td>Degree Applicable</td>
<td>54</td>
<td>Degree Applicable, CSU</td>
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<tr>
<td><strong>PLGL 41</strong> — Property Law</td>
<td>3</td>
<td>Degree Applicable</td>
<td>54</td>
<td>Degree Applicable, CSU</td>
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<tr>
<td><strong>PLGL 42</strong> — Family Law</td>
<td>3</td>
<td>Degree Applicable</td>
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<tr>
<td><strong>PLGL 43</strong> — Wills and Trusts</td>
<td>3</td>
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<tr>
<td><strong>PLGL 44</strong> — Bankruptcy Law</td>
<td>3</td>
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<td><strong>PLGL 45</strong> — Creditors’ Rights</td>
<td>3</td>
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<td><strong>PLGL 47A</strong> — Litigation Procedures</td>
<td>3</td>
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<td><strong>PLGL 47B</strong> — Litigation Practice</td>
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<tr>
<td><strong>PLGL 48</strong> — Criminal Law and Procedures</td>
<td>3</td>
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<tr>
<td><strong>PLGL 49</strong> — Evidence Law</td>
<td>3</td>
<td>Degree Applicable</td>
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<tr>
<td><strong>PLGL 50</strong> — Comparative Law</td>
<td>3</td>
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<td>Degree Applicable</td>
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<tr>
<td><strong>BUSR 50</strong> — Real Estate Principles</td>
<td>3</td>
<td>Degree Applicable</td>
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<td><strong>BUSR 51</strong> — Legal Aspects of Real Estate</td>
<td>3</td>
<td>Degree Applicable</td>
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<tr>
<td><strong>BUSR 52</strong> — Real Estate Practice</td>
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<tr>
<td><strong>BUSR 52D</strong> — Real Estate Practice Work Experience</td>
<td>3</td>
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<tr>
<td><strong>BUSR 53</strong> — Real Estate Finance</td>
<td>3</td>
<td>Degree Applicable</td>
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</tbody>
</table>

**BUSINESS: REAL ESTATE**
BUSR 55 — Real Estate Economics
3 Units
54 hours lecture
Prerequisite: BUSR 50
Analysis of international, national and local factors which determine the value of real estate.

BUSR 57 — Income Tax Aspects of Real Estate Investments
3 Units
54 hours lecture
Prerequisite: BUSR 50
Income tax principles governing the acquisition, ownership, operation and disposition of real property investments with special emphasis on tax planning and integration of tax concepts with procedural aspects. May be used as an elective course to satisfy the salesperson or broker license. (May be taken for option of letter grade or Pass/No Pass)

Prerequisite: BUSR 50
Advisory: BUSR 50

Prerequisite: BUSR 50

Prerequisite: BUSR 50

Prerequisite: Eligibility for ENGL 68

Prerequisite: Eligibility for ENGL 68

Prerequisite: Eligibility for ENGL 68

Prerequisite: CHEM 10 or CHEM 40

Chemistry for Allied Health Majors
5 Units
72 hours lecture
54 hours lab
Prerequisite: Eligibility for MATH 71
Principles of inorganic chemistry including measurements, structure, nomenclature, reactions, 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
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.

BUSR 58 — Appraisal: Principles and Procedures
3.5 Units
54 hours lecture
Advisory: BUSR 50
Principles and procedures of appraising real property with emphasis on residential properties. Required by Office of Real Estate Appraisers (OREA) for all appraisal licenses and by the Department of Real Estate (DRE) for real estate broker license. Provides 60 hours toward OREA requirements for state licensing. Includes all topics listed in Appraisal Qualifications Board (AQB) Basic Appraisal Principles and Basic Appraisal Procedures modules. May be used as the elective course for the salesperson license.

BUSINESS: SALES, MERCHANDISING, AND MARKETING

BUS 33 — Advertising and Promotion
3 Units
54 hours lecture
Characteristics and role of advertising and promotion in business. Emphasis is placed on promotional mix, trend and forecast research, and developing a comprehensive multimedia promotion plan including advertising layout and copy.

BUS 35 — Professional Selling
3 Units
54 hours lecture
Prerequisite: Eligibility for ENGL 68
Principles of selling and the role of a salesperson in the marketing process. Includes characteristics and skills necessary for a successful salesperson, techniques for prospecting and/or qualifying buyers, buyer behavior and critical steps in the selling process. Students develop and offer a sales presentation for a selected product, service or concept.

BUS 36 — Principles of Marketing
3 Units
54 hours lecture
Prerequisite: Eligibility for ENGL 68
Organization and function of system of distributing goods and services from the point of production to the consumer. Preparation of a marketing plan using product, distribution, promotional and pricing strategies.

BUS 50 — Retail Store Management and Merchandising
3 Units
54 hours lecture
Principles and practices used in the management and merchandising of retail stores. Includes critical buying function, merchandising, promotional techniques, site selection, layout, staffing, market positioning and customer service.
**Course Descriptions**

**CHEM 40 — Introduction to General Chemistry**
5 Units  
(C-ID CHEM 101) Degree Applicable, CSU, UC  
72 hours lecture  
54 hours lab  
Prerequisite: Eligibility for MATH 71  
Advisory: Eligibility for ENGL 1A  
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  
(C-ID CHEM 110) Degree Applicable, CSU, UC  
54 hours lecture  
108 hours lab  
Prerequisite: CHEM 40 or satisfactory score on Chemistry Placement Examination; and MATH 71, 71B or 71X or equivalent.  
In depth treatment of chemical formulas, equations, nomenclature, reactions, stoichiometry, thermodynamics, periodic trends, atomic structure, chemical bonding and structure, properties of gases, liquids, solids and solutions. Emphasis is on critical thinking as well as mathematical and dimensional analysis problem-solving. Laboratory experiments emphasize the scientific method as well as computer-based technologies in data acquisition and analysis. Introduces laboratory report writing skills.

**CHEM 50H — General Chemistry I - Honors**
5 Units  
(C-ID CHEM 110) Degree Applicable, CSU, UC  
54 hours lecture  
108 hours lab  
Prerequisite: Acceptance into the Honors Program. CHEM 40 or satisfactory score on Chemistry Placement Examination, and MATH 71, 71B, or 71X or equivalent.  
In depth treatment of chemical formulas, equations, nomenclature, reactions, stoichiometry, thermodynamics, periodic trends, atomic structure, chemical bonding and structure, properties of gases, liquids, solids and solutions. Emphasis is on critical thinking as well as mathematical and dimensional analysis problem-solving. Laboratory experiments emphasize the scientific method as well as computer-based technologies in data acquisition and analysis. Introduces laboratory report writing skills. An honors course designed to provide an enriched experience. Students may not receive credit for both CHEM 50 and CHEM 50H.

**CHEM 51 — General Chemistry II**
5 Units  
Degree Applicable, CSU, UC  
54 hours lecture  
108 hours lab  
Prerequisite: CHEM 50 or CHEM 50H  
Application of the laws, theories and principles presented in CHEM 50 to a variety of chemical systems. Topics include kinetics, equilibrium, thermodynamics, acid-base and oxidation-reduction reactions, transition metals, electrochemistry, and nuclear chemistry. Emphasis is on critical thinking and mathematical problem-solving. Laboratory experiments use computer-based technologies in data acquisition and analysis.

**CHEM 54 — Special Projects in Chemistry**
2 Units  
Degree Applicable, CSU  
36 hours lecture  
Prerequisite: CHEM 50  
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.

**CHEM 55 — Organic Chemistry**
5 Units  
(C-ID CHEM 160S) 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 56 — Organic Chemistry II**
5 Units  
(C-ID CHEM 160S) 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. Structure, synthesis and representative reactions of carbohydrates, lipids and proteins.

**CHEM 58 — Organic Chemistry II**
5 Units  
(C-ID CHEM 160S) 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. Structure, synthesis and representative reactions of carbohydrates, lipids and proteins.

**CHEM 59 — Special Projects in Chemistry**
2 Units  
Degree Applicable, CSU  
36 hours lecture  
Prerequisite: CHEM 50  
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.

**CHEM 61 — Introduction to Child Development Curriculum**
3 Units  
(C-ID ECE 120) Degree Applicable, CSU  
54 hours lecture  
Examine programs, appropriate practices, regulations, inclusive environments for diverse learners. Theoretical principles of developmentally appropriate practices applied to programs, environments, emphasizing the key role of relationships, constructive adult-child interactions, and teaching strategies in supporting physical, social, creative and intellectual development for children. Review of the historical roots of Early Childhood Education (ECE) programs and evolution of the professional practices promoting advocacy, ethics, and professional identity. TB test/10 hrs. observations.

**CHEM 62 — Principles and Practices in Child Development Programs**
3 Units  
(C-ID ECE 120) Degree Applicable, CSU  
54 hours lecture  
Examine programs, appropriate practices, regulations, inclusive environments for diverse learners. Theoretical principles of developmentally appropriate practices applied to programs, environments, emphasizing the key role of relationships, constructive adult-child interactions, and teaching strategies in supporting physical, social, creative and intellectual development for children. Review of the historical roots of Early Childhood Education (ECE) programs and evolution of the professional practices promoting advocacy, ethics, and professional identity. TB test/10 hrs. observations.

**CHEM 63 — Principles and Practices in Child Development Programs**
3 Units  
(C-ID ECE 120) Degree Applicable, CSU  
54 hours lecture  
Examine programs, appropriate practices, regulations, inclusive environments for diverse learners. Theoretical principles of developmentally appropriate practices applied to programs, environments, emphasizing the key role of relationships, constructive adult-child interactions, and teaching strategies in supporting physical, social, creative and intellectual development for children. Review of the historical roots of Early Childhood Education (ECE) programs and evolution of the professional practices promoting advocacy, ethics, and professional identity. TB test/10 hrs. observations.

**CHEM 64 — Principles and Practices in Child Development Programs**
3 Units  
(C-ID ECE 120) Degree Applicable, CSU  
54 hours lecture  
Examine programs, appropriate practices, regulations, inclusive environments for diverse learners. Theoretical principles of developmentally appropriate practices applied to programs, environments, emphasizing the key role of relationships, constructive adult-child interactions, and teaching strategies in supporting physical, social, creative and intellectual development for children. Review of the historical roots of Early Childhood Education (ECE) programs and evolution of the professional practices promoting advocacy, ethics, and professional identity. TB test/10 hrs. observations.

**CHEM 65 — Principles and Practices in Child Development Programs**
3 Units  
(C-ID ECE 120) Degree Applicable, CSU  
54 hours lecture  
Examine programs, appropriate practices, regulations, inclusive environments for diverse learners. Theoretical principles of developmentally appropriate practices applied to programs, environments, emphasizing the key role of relationships, constructive adult-child interactions, and teaching strategies in supporting physical, social, creative and intellectual development for children. Review of the historical roots of Early Childhood Education (ECE) programs and evolution of the professional practices promoting advocacy, ethics, and professional identity. TB test/10 hrs. observations.

**CHEM 66 — Principles and Practices in Child Development Programs**
3 Units  
(C-ID ECE 120) Degree Applicable, CSU  
54 hours lecture  
Examine programs, appropriate practices, regulations, inclusive environments for diverse learners. Theoretical principles of developmentally appropriate practices applied to programs, environments, emphasizing the key role of relationships, constructive adult-child interactions, and teaching strategies in supporting physical, social, creative and intellectual development for children. Review of the historical roots of Early Childhood Education (ECE) programs and evolution of the professional practices promoting advocacy, ethics, and professional identity. TB test/10 hrs. observations.

**CHEM 67 — Principles and Practices in Child Development Programs**
3 Units  
(C-ID ECE 120) Degree Applicable, CSU  
54 hours lecture  
Examine programs, appropriate practices, regulations, inclusive environments for diverse learners. Theoretical principles of developmentally appropriate practices applied to programs, environments, emphasizing the key role of relationships, constructive adult-child interactions, and teaching strategies in supporting physical, social, creative and intellectual development for children. Review of the historical roots of Early Childhood Education (ECE) programs and evolution of the professional practices promoting advocacy, ethics, and professional identity. TB test/10 hrs. observations.

**CHEM 68 — Principles and Practices in Child Development Programs**
3 Units  
(C-ID ECE 120) Degree Applicable, CSU  
54 hours lecture  
Examine programs, appropriate practices, regulations, inclusive environments for diverse learners. Theoretical principles of developmentally appropriate practices applied to programs, environments, emphasizing the key role of relationships, constructive adult-child interactions, and teaching strategies in supporting physical, social, creative and intellectual development for children. Review of the historical roots of Early Childhood Education (ECE) programs and evolution of the professional practices promoting advocacy, ethics, and professional identity. TB test/10 hrs. observations.

**CHEM 69 — Principles and Practices in Child Development Programs**
3 Units  
(C-ID ECE 120) Degree Applicable, CSU  
54 hours lecture  
Examine programs, appropriate practices, regulations, inclusive environments for diverse learners. Theoretical principles of developmentally appropriate practices applied to programs, environments, emphasizing the key role of relationships, constructive adult-child interactions, and teaching strategies in supporting physical, social, creative and intellectual development for children. Review of the historical roots of Early Childhood Education (ECE) programs and evolution of the professional practices promoting advocacy, ethics, and professional identity. TB test/10 hrs. observations.

**CHEM 70 — Principles and Practices in Child Development Programs**
3 Units  
(C-ID ECE 120) Degree Applicable, CSU  
54 hours lecture  
Examine programs, appropriate practices, regulations, inclusive environments for diverse learners. Theoretical principles of developmentally appropriate practices applied to programs, environments, emphasizing the key role of relationships, constructive adult-child interactions, and teaching strategies in supporting physical, social, creative and intellectual development for children. Review of the historical roots of Early Childhood Education (ECE) programs and evolution of the professional practices promoting advocacy, ethics, and professional identity. TB test/10 hrs. observations.
### Course Descriptions

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHLD 10H</td>
<td>Child Growth and Lifespan - Honors</td>
<td>3</td>
<td>Development of social identities in diverse societies of young children in classroom settings. Various classroom strategies will be explored emphasizing culturally and linguistically appropriate approaches.</td>
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<tr>
<td>CHLD 11</td>
<td>Child and Adolescent Development</td>
<td>3</td>
<td>Examines major physical, psychosocial, cognitive, language and brain development processes prenatal through adolescence. Emphasis on developmental theory, research methodologies, and environmental factors.</td>
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<tr>
<td>CHLD 50</td>
<td>Teaching in a Diverse Society</td>
<td>3</td>
<td>Development of social identities in diverse societies of young children in classroom settings. Various classroom strategies will be explored emphasizing culturally and linguistically appropriate approaches.</td>
</tr>
<tr>
<td>CHLD 61</td>
<td>Language Arts and Art Media for Young Children</td>
<td>3</td>
<td>Exploration of activities and techniques to develop artistic and literacy skills in young children. Participation in art and literacy experiences to evaluate materials and approaches.</td>
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<tr>
<td>CHLD 62</td>
<td>Music and Motor Development for Young Children</td>
<td>3</td>
<td>Exploration of the role of music and movement in a young child’s sensory motor development. Emphasizes student development in practical activities including making music, movement, singing, and musical instruments.</td>
</tr>
<tr>
<td>CHLD 63</td>
<td>Creative Sciencing and Math for Young Children</td>
<td>3</td>
<td>Exploration of activities and techniques to develop artistic and literacy skills in young children. Participation in art and literacy experiences to evaluate materials and approaches.</td>
</tr>
<tr>
<td>CHLD 64</td>
<td>Health, Safety and Nutrition of Children</td>
<td>3</td>
<td>Introduction to the laws, regulations, standards, policies and procedures and early childhood curriculum related to child health and safety. The key components that ensure physical health, mental health and safety for both children and staff.</td>
</tr>
<tr>
<td>CHLD 66</td>
<td>Early Childhood Development Observation</td>
<td>2</td>
<td>The appropriate use of observation and assessment strategies to document children’s behavior, development and growth. Recording strategies, documentation panels, rating systems, and multiple assessment tools are explored.</td>
</tr>
<tr>
<td>CHLD 51</td>
<td>Early Literacy in Child Development</td>
<td>3</td>
<td>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.</td>
</tr>
<tr>
<td>CHLD 52</td>
<td>Music and Motor Development for Young Children</td>
<td>3</td>
<td>Exploration of the role of music and movement in a young child’s sensory motor development. Emphasizes student development in practical activities including making music, movement, singing, and musical instruments.</td>
</tr>
<tr>
<td>CHLD 67</td>
<td>Early Childhood Education Practicum</td>
<td>2</td>
<td>Supervised teaching experience with young children. Child centered, play-oriented approaches to teaching, learning and assessment. Student teachers design, implement and evaluate curriculum for groups of children.</td>
</tr>
</tbody>
</table>

**Advisory:** CHLD 1

**Corequisite:** CHLD 66L must be taken concurrently.
<table>
<thead>
<tr>
<th>Course Descriptions</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CHLD 68</strong> — Children With Special Needs</td>
</tr>
<tr>
<td>Degree Applicable, CSU</td>
</tr>
<tr>
<td>54 hours lecture</td>
</tr>
<tr>
<td>Prerequisite: Eligibility for ENGL 68 AND (CHLD 10 or CHLD 10H or CHLD 11)</td>
</tr>
<tr>
<td>Typical and atypical characteristics in physical, cognitive, and social-emotional development for those planning to work with children with special needs. Topics relevant to the inclusive classroom are examined from a culturally sensitive, family-centered perspective. Examines current and historical legal issues, current educational trends, and community resources. TB test required for off-campus observations.</td>
</tr>
<tr>
<td><strong>CHLD 69</strong> — Early Childhood Development Field</td>
</tr>
<tr>
<td>Work Seminar</td>
</tr>
<tr>
<td>Degree Applicable, CSU</td>
</tr>
<tr>
<td>36 hours lecture</td>
</tr>
<tr>
<td>Prerequisite: CHLD 67 and CHLD 67L</td>
</tr>
<tr>
<td>Corequisite: CHLD 91</td>
</tr>
<tr>
<td>Selected student teaching problem-solving topics related to placement in community sites. Topics include philosophical orientation, curriculum, parent involvement, staff relations, professionalism and professional growth.</td>
</tr>
<tr>
<td><strong>CHLD 71A</strong> — Administration of Child Development Programs</td>
</tr>
<tr>
<td>Degree Applicable, CSU</td>
</tr>
<tr>
<td>54 hours lecture</td>
</tr>
<tr>
<td>Advisory: CHLD 1 and CHLD 5 and CHLD 6 and CHLD 10 or CHLD 10H</td>
</tr>
<tr>
<td>Administration of children’s programs including laws governing children’s programs in California, site development and supervision, administrator’s duties, program budget and management, personnel selection and standards, records and reports, health and safety supervision and staff policies.</td>
</tr>
<tr>
<td><strong>CHLD 71B</strong> — Management/Marketing/Personnel</td>
</tr>
<tr>
<td>for ECD Programs</td>
</tr>
<tr>
<td>Degree Applicable, CSU</td>
</tr>
<tr>
<td>54 hours lecture</td>
</tr>
<tr>
<td>Prerequisite: CHLD 71A</td>
</tr>
<tr>
<td>Strategic planning for childhood programs, including financial administration, marketing strategies and staff development. Personnel management practices designed to facilitate administrator and staff relationships, skill building in leadership, and team work.</td>
</tr>
<tr>
<td><strong>CHLD 72</strong> — Teacher, Parent, and Child Relationships</td>
</tr>
<tr>
<td>Degree Applicable</td>
</tr>
<tr>
<td>54 hours lecture</td>
</tr>
<tr>
<td>Child-parent-teacher relationships to better understand family dynamics and to recognize influences in the child development setting. Theories of sequential changes in parent-child-school relations within the large social context. Strategies dealing with issues that emerge when working with children and their families in the school setting.</td>
</tr>
<tr>
<td><strong>CHLD 73</strong> — Infant/Toddler Care and Development</td>
</tr>
<tr>
<td>Degree Applicable, CSU</td>
</tr>
<tr>
<td>54 hours lecture</td>
</tr>
<tr>
<td>Advisory: CHLD 10</td>
</tr>
<tr>
<td>Developmentally appropriate caregiving practices for infants and toddlers from birth to three. Includes teaching practices that support theories and practical application of attachment, cognition and relationship based learning. Student assignments involve up to ten hours of observations and participation with infants and toddlers outside of class time. TB test required for observations.</td>
</tr>
<tr>
<td><strong>CHLD 74</strong> — Program Planning for the School Age Child</td>
</tr>
<tr>
<td>Degree Applicable</td>
</tr>
<tr>
<td>54 hours lecture</td>
</tr>
<tr>
<td>Advisory: CHLD 10 or CHLD 10H or CHLD 11</td>
</tr>
<tr>
<td>Principles of child development related to working with school-age children. Program planning and legal requirements for school-age programs emphasized. Explores discipline and conflict resolution. Methods of integrating after-school activities with California content standards. TB test required for observations.</td>
</tr>
<tr>
<td><strong>CHLD 75</strong> — Supervising Adults in Early Childhood Settings</td>
</tr>
<tr>
<td>Degree Applicable</td>
</tr>
<tr>
<td>36 hours lecture</td>
</tr>
<tr>
<td>Advisory: CHLD 1 and CHLD 5</td>
</tr>
<tr>
<td>Methods and principles of working with and supervising adults in the early childhood setting. Emphasis is on the role of the experienced children’s teacher who functions as a model and mentor to new teachers as s/he addresses the needs of children, parents and staff.</td>
</tr>
<tr>
<td><strong>CHLD 75</strong> — Current Curriculum Models in Child Development</td>
</tr>
<tr>
<td>Degree Applicable</td>
</tr>
<tr>
<td>(May be taken for option of letter grade or Pass/No Pass)</td>
</tr>
<tr>
<td>18 hours lecture</td>
</tr>
<tr>
<td>Prerequisite: CHLD 71A</td>
</tr>
<tr>
<td>Provides students with working knowledge of specific curriculum models appropriate for child development programs. Origins, classroom practices, pros, cons, and evaluation methods discussed. Curriculum model will change with course offering.</td>
</tr>
<tr>
<td><strong>CHLD 76</strong> — Advocacy in Child Development</td>
</tr>
<tr>
<td>Degree Applicable</td>
</tr>
<tr>
<td>(May be taken for option of letter grade or Pass/No Pass)</td>
</tr>
<tr>
<td>18 hours lecture</td>
</tr>
<tr>
<td>Current issues in Child Development; explores process of advocacy on behalf of children.</td>
</tr>
<tr>
<td><strong>CHLD 77</strong> — Current Issues in Child Development</td>
</tr>
<tr>
<td>Degree Applicable</td>
</tr>
<tr>
<td>(May be taken for option of letter grade or Pass/No Pass)</td>
</tr>
<tr>
<td>18 hours lecture</td>
</tr>
<tr>
<td>Advisory: CHLD 5, CHLD 10 or CHLD 10H</td>
</tr>
<tr>
<td>Provides students with a working knowledge of current research in child development and helps them apply that research to their programs and teaching. Issues covered will change with course offerings.</td>
</tr>
<tr>
<td><strong>CHLD 78</strong> — Language and Communication 3 Units</td>
</tr>
<tr>
<td>Degree Applicable</td>
</tr>
<tr>
<td>54 hours lecture</td>
</tr>
<tr>
<td>Advisory: CHLD 10 or CHLD 10H</td>
</tr>
<tr>
<td>Principles and methods of studying and improving the language and communication of children. Technological tools and classroom practices are introduced to support children’s language growth.</td>
</tr>
<tr>
<td><strong>CHLD 79</strong> — Current Issues in Child Development</td>
</tr>
<tr>
<td>Degree Applicable</td>
</tr>
<tr>
<td>(May be taken for option of letter grade or Pass/No Pass)</td>
</tr>
<tr>
<td>18 hours lecture</td>
</tr>
<tr>
<td>Advisory: CHLD 5, CHLD 10 or CHLD 10H</td>
</tr>
<tr>
<td>Provides students with a working knowledge of current research in child development and helps them apply that research to their programs and teaching. Issues covered will change with course offerings.</td>
</tr>
<tr>
<td><strong>CHLD 80</strong> — Current Issues in Child Development</td>
</tr>
<tr>
<td>Degree Applicable</td>
</tr>
<tr>
<td>(May be taken for option of letter grade or Pass/No Pass)</td>
</tr>
<tr>
<td>18 hours lecture</td>
</tr>
<tr>
<td>Advisory: CHLD 5, CHLD 10 or CHLD 10H</td>
</tr>
<tr>
<td>Provides students with a working knowledge of current research in child development and helps them apply that research to their programs and teaching. Issues covered will change with course offerings.</td>
</tr>
<tr>
<td><strong>CHLD 81</strong> — Current Issues in Child Development</td>
</tr>
<tr>
<td>Degree Applicable</td>
</tr>
<tr>
<td>(May be taken for option of letter grade or Pass/No Pass)</td>
</tr>
<tr>
<td>18 hours lecture</td>
</tr>
<tr>
<td>Advisory: CHLD 5, CHLD 10 or CHLD 10H</td>
</tr>
<tr>
<td>Provides students with a working knowledge of current research in child development and helps them apply that research to their programs and teaching. Issues covered will change with course offerings.</td>
</tr>
<tr>
<td><strong>CHLD 82</strong> — Current Issues in Child Development</td>
</tr>
<tr>
<td>Degree Applicable</td>
</tr>
<tr>
<td>(May be taken for option of letter grade or Pass/No Pass)</td>
</tr>
<tr>
<td>18 hours lecture</td>
</tr>
<tr>
<td>Advisory: CHLD 5, CHLD 10 or CHLD 10H</td>
</tr>
<tr>
<td>Provides students with a working knowledge of current research in child development and helps them apply that research to their programs and teaching. Issues covered will change with course offerings.</td>
</tr>
<tr>
<td><strong>CHLD 83</strong> — Current Issues in Child Development</td>
</tr>
<tr>
<td>Degree Applicable</td>
</tr>
<tr>
<td>(May be taken for option of letter grade or Pass/No Pass)</td>
</tr>
<tr>
<td>18 hours lecture</td>
</tr>
<tr>
<td>Advisory: CHLD 5, CHLD 10 or CHLD 10H</td>
</tr>
<tr>
<td>Provides students with a working knowledge of current research in child development and helps them apply that research to their programs and teaching. Issues covered will change with course offerings.</td>
</tr>
<tr>
<td><strong>CHLD 84</strong> — Guidance and Discipline in Child Development Settings</td>
</tr>
<tr>
<td>Degree Applicable, CSU</td>
</tr>
<tr>
<td>18 hours lecture</td>
</tr>
<tr>
<td>Advisory: CHLD 5</td>
</tr>
<tr>
<td>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.</td>
</tr>
<tr>
<td><strong>CHLD 85</strong> — Infants At Risk</td>
</tr>
<tr>
<td>Degree Applicable</td>
</tr>
<tr>
<td>54 hours lecture</td>
</tr>
<tr>
<td>Prerequisite: CHLD 10</td>
</tr>
<tr>
<td>Advisory: CHLD 73</td>
</tr>
<tr>
<td>Principles and methods of working with infants who are disabled or at-risk. Emphasis on prenatal prevention, postnatal intervention, and support programs. Course will prepare caregivers of infants at risk for appropriate program planning. TB test and out-of-class observations required.</td>
</tr>
<tr>
<td><strong>CHLD 86</strong> — Infants At Risk</td>
</tr>
<tr>
<td>Degree Applicable</td>
</tr>
<tr>
<td>54 hours lecture</td>
</tr>
<tr>
<td>Prerequisite: CHLD 10</td>
</tr>
<tr>
<td>Advisory: CHLD 73</td>
</tr>
<tr>
<td>Principles and methods of working with infants who are disabled or at-risk. Emphasis on prenatal prevention, postnatal intervention, and support programs. Course will prepare caregivers of infants at risk for appropriate program planning. TB test and out-of-class observations required.</td>
</tr>
<tr>
<td><strong>CHLD 87</strong> — Infants At Risk</td>
</tr>
<tr>
<td>Degree Applicable</td>
</tr>
<tr>
<td>54 hours lecture</td>
</tr>
<tr>
<td>Prerequisite: CHLD 10</td>
</tr>
<tr>
<td>Advisory: CHLD 73</td>
</tr>
<tr>
<td>Principles and methods of working with infants who are disabled or at-risk. Emphasis on prenatal prevention, postnatal intervention, and support programs. Course will prepare caregivers of infants at risk for appropriate program planning. TB test and out-of-class observations required.</td>
</tr>
<tr>
<td><strong>CHLD 88</strong> — Infants At Risk</td>
</tr>
<tr>
<td>Degree Applicable</td>
</tr>
<tr>
<td>54 hours lecture</td>
</tr>
<tr>
<td>Prerequisite: CHLD 10</td>
</tr>
<tr>
<td>Advisory: CHLD 73</td>
</tr>
<tr>
<td>Principles and methods of working with infants who are disabled or at-risk. Emphasis on prenatal prevention, postnatal intervention, and support programs. Course will prepare caregivers of infants at risk for appropriate program planning. TB test and out-of-class observations required.</td>
</tr>
<tr>
<td><strong>CHLD 89</strong> — Infants At Risk</td>
</tr>
<tr>
<td>Degree Applicable</td>
</tr>
<tr>
<td>54 hours lecture</td>
</tr>
<tr>
<td>Prerequisite: CHLD 10</td>
</tr>
<tr>
<td>Advisory: CHLD 73</td>
</tr>
<tr>
<td>Principles and methods of working with infants who are disabled or at-risk. Emphasis on prenatal prevention, postnatal intervention, and support programs. Course will prepare caregivers of infants at risk for appropriate program planning. TB test and out-of-class observations required.</td>
</tr>
<tr>
<td><strong>CHLD 90</strong> — Infants At Risk</td>
</tr>
<tr>
<td>Degree Applicable</td>
</tr>
<tr>
<td>54 hours lecture</td>
</tr>
<tr>
<td>Prerequisite: CHLD 10</td>
</tr>
<tr>
<td>Advisory: CHLD 73</td>
</tr>
<tr>
<td>Principles and methods of working with infants who are disabled or at-risk. Emphasis on prenatal prevention, postnatal intervention, and support programs. Course will prepare caregivers of infants at risk for appropriate program planning. TB test and out-of-class observations required.</td>
</tr>
<tr>
<td><strong>CHLD 91</strong> — Early Childhood Development Field Work</td>
</tr>
<tr>
<td>Degree Applicable, CSU</td>
</tr>
<tr>
<td>(May be taken for Pass/No Pass only)</td>
</tr>
<tr>
<td>75 hours lab</td>
</tr>
<tr>
<td>Prerequisite: CHLD 67 and CHLD 67L</td>
</tr>
<tr>
<td>Corequisite: CHLD 69</td>
</tr>
<tr>
<td>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. Hours per week should be equally distributed throughout the semester. TB test is required.</td>
</tr>
</tbody>
</table>
### CHINESE

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Units</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CHIN 1</strong></td>
<td>Elementary Chinese</td>
<td>4</td>
<td>Degree Applicable, CSU, UC 72 hours lecture</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Intended for students without previous exposure to Chinese.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Begins to develop the ability to converse, read, and write in Mandarin Chinese. Includes the study of essentials of pronunciation, vocabulary, idioms, and grammatical structures along with an introduction to Chinese culture.</td>
</tr>
<tr>
<td><strong>CHIN 2</strong></td>
<td>Continuing Elementary Chinese</td>
<td>4</td>
<td>Degree Applicable, CSU, UC 72 hours lecture</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Prerequisite: CHIN 1 or equivalent</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Further develops conversational, reading, and writing skills in Mandarin Chinese with special emphasis on verbs, grammar, and extension of vocabulary.</td>
</tr>
<tr>
<td><strong>CHIN 3</strong></td>
<td>Intermediate Chinese</td>
<td>4</td>
<td>Degree Applicable, CSU, UC 72 hours lecture</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Prerequisite: CHIN 2</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>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.</td>
</tr>
<tr>
<td><strong>CHIN 4</strong></td>
<td>Continuing Intermediate Chinese</td>
<td>4</td>
<td>Degree Applicable, CSU, UC 72 hours lecture</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Prerequisite: CHIN 3</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Using Mandarin in traveling, telling stories, describing experiences and discussing Chinese literary works, festivals, food and advanced grammar.</td>
</tr>
</tbody>
</table>

### COMPUTER GRAPHICS

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Units</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>GRAP 8</strong></td>
<td>Fundamentals of Digital Media</td>
<td>3</td>
<td>Degree Applicable, CSU 36 hours lecture</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>54 hours lab</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Introductory course for all disciplines interested in learning scientific concepts, terminology, and basic techniques used to produce digital media content. Includes software such as Adobe Photoshop, Apple iPhoto and iMovie, and computer and other electronic hardware techniques necessary to acquire, store, edit, transfer, or output digital media files.</td>
</tr>
<tr>
<td><strong>GRAP 10</strong></td>
<td>Photoshop Imagery</td>
<td>3</td>
<td>Degree Applicable, CSU 36 hours lecture</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(May be taken for option of letter grade or Pass/No Pass)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>54 hours lab</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Adobe Photoshop software skills, techniques and digital workflow practices from digital image editing and retouching to the composited imagery commonly created for use in photography, commercial design, printing and publishing, the internet and multimedia authoring production.</td>
</tr>
<tr>
<td><strong>GRAP 12</strong></td>
<td>Photoshop Imagery Extended</td>
<td>3</td>
<td>Degree Applicable, CSU 36 hours lecture</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(May be taken for option of letter grade or Pass/No Pass)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>54 hours lab</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Prerequisite: GRAP 10</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Adobe Illustrator software skills, techniques and digital workflow from essential digital drawing basics to creatively conceived illustrative imagery and renderings commonly created for use in commercial design, printing and publishing, the internet and multimedia authoring production.</td>
</tr>
<tr>
<td><strong>GRAP 15</strong></td>
<td>InDesign Graphics</td>
<td>3</td>
<td>Degree Applicable, CSU 36 hours lecture</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(May be taken for option of letter grade or Pass/No Pass)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>54 hours lab</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Adobe InDesign software skills, techniques and digital workflow practices commonly created for use in essential computer graphics production processes for commercial design, printing and publishing, the Internet and multimedia authoring production.</td>
</tr>
<tr>
<td><strong>GRAP 16</strong></td>
<td>Illustrator Graphics</td>
<td>3</td>
<td>Degree Applicable, CSU 36 hours lecture</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(May be taken for option of letter grade or Pass/No Pass)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>54 hours lab</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Adobe Illustrator software skills, techniques and digital workflow from essential digital drawing basics to creatively conceived illustrative imagery and renderings commonly created for use in commercial design, printing and publishing, the internet, and multimedia authoring production.</td>
</tr>
<tr>
<td><strong>GRAP 18</strong></td>
<td>3D Graphics Imagery</td>
<td>3</td>
<td>Degree Applicable, CSU 36 hours lecture</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(May be taken for option of letter grade or Pass/No Pass)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>54 hours lab</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>3D graphics modeling software skills and production techniques from 2D orthographic drawing to the creatively conceived 3D imagery and animated environments commonly created for self-expression, entertainment, commercial design, printing and publishing, the internet, and multimedia authoring production.</td>
</tr>
</tbody>
</table>

### COMPUTER INFORMATION SYSTEMS: AUXILIARY

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Units</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CISX 94</strong></td>
<td>Special Projects in Computer Information Systems</td>
<td>1 to 3</td>
<td>Degree Applicable, CSU 18 hours lecture</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(May be taken for Pass/No Pass only)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>54 hours lab</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Special topics expanding the essential knowledge, skills, production techniques and proficiency of Computer Graphics commonly created for self-expression, entertainment, commercial design, the Internet, and multimedia production.</td>
</tr>
</tbody>
</table>

### COMPUTER INFORMATION SYSTEMS: BEGINNING

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Units</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CISX 10</strong></td>
<td>Office Skills</td>
<td>3</td>
<td>Degree Applicable, CSU 54 hours lecture</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Skills necessary to work in an office setting including: alpha and numeric keyboarding, email etiquette and standards, electronic calendaring, ten-key, composing, formatting and storing business documents, telephone techniques.</td>
</tr>
</tbody>
</table>
Course Descriptions

**CISB 16 — Macintosh Applications** 3.5 Units
Degree Applicable, CSU
54 hours lecture
27 hours lab
Overview of computer information systems including computer hardware, software, networking, programming, databases, Internet, security, systems analysis, ethics, and problem solving using business applications.

**CISB 15 — Microcomputer Applications** 3.5 Units
Degree Applicable, CSU
54 hours lecture
27 hours lab
Windows operating system and applications; simple business examples using up-to-date browser; word processing, spreadsheet, database management and presentation software; and integration of software applications.

**CISB 11 — Computer Information Systems** 3.5 Units
Degree Applicable, CSU
54 hours lecture
27 hours lab
Overview of computer information systems including computer hardware, software, networking, programming, databases, Internet, security, systems analysis, ethics, and problem solving using business applications.

**CISB 21 — Microsoft Excel** 3 Units
Degree Applicable, CSU
54 hours lecture
27 hours lab
Spreadsheet concepts using Microsoft Excel including formatting, formulas and functions, charts, linked worksheets, pivot tables, macros, and Visual Basic for Applications (VBA) code.

**CISB 31 — Microsoft Word** 3 Units
Degree Applicable, CSU
54 hours lecture
(May be taken for option of letter grade or Pass/No Pass)
27 hours lab
Advisory: Ability to type 25 words a minute or CISI 11
Word processing with Microsoft Word and its editing, formatting, and language tools to create, edit and format business and publication documents. Includes creating flyers, newsletters, and other publication documents using advanced formatting techniques and tools.

**CISB 51 — Microsoft PowerPoint** 3 Units
Degree Applicable, CSU
54 hours lecture
Using PowerPoint to plan, design, and produce effective presentations. Includes creating charts, diagrams, and storyboards; developing appropriate text content; adding sound, animation, and movies.

**COMPUTER INFORMATION SYSTEMS: DATABASE**

**CISD 11 — Database Management - Microsoft Access** 3 Units
Degree Applicable, CSU
54 hours lecture
Corequisite: CISD 11L
Advisory: CISB 11 or CISB 15
Design, creation, and management of relational databases using Microsoft Access. Basic database design, creation of tables, queries, forms, reports, and macros. Creation of custom graphical user interface and introduction to Visual Basic for Applications (VBA) code.

**CISD 11L — Database Management - Microsoft Access Laboratory**
Degree Applicable, CSU
27 hours lab
Corequisite: CISD 11
Laboratory for CISD 11 - Database Management - Microsoft Access. Exercises focusing on design and development of a business database using Microsoft Access software, including creation of tables and relationships between tables, queries, forms, reports, macros and an introduction to Visual Basics for Applications (VBA) programming language to make a fully-functioning, user-friendly Access database.

**CISD 14 — VBA for Excel and Access** 3 Units
Degree Applicable, CSU
54 hours lecture
Corequisite: CISD 14L
Advisory: CISD 11L AND CISD 21
Excel and Access programming using Visual Basic for Applications (VBA) programming language for business applications. Event-driven programming, Excel and Access Object Models, ActiveX Data Objects model (ADO), VBA structures, arrays, embedded SQL (Structured Query Language) into Access VBA, and error-handling.

**CISD 14L — VBA for Excel and Access Lab** .5 Unit
Degree Applicable, CSU
27 hours lab
Corequisite: CISD 14
Laboratory component for the CISD 14 course. Visual Basic for Applications (VBA) programming language exercises in both Excel and Access applications. Uses the structures learned in the CISD 14 course, including decision statements, looping, array manipulation, and error-handling. Use the Excel and Access Object Models and the ActiveX Data Objects model in programming projects.

**CISD 21 — Database Management - Microsoft SQL Server** 3 Units
Degree Applicable, CSU
54 hours lecture
Corequisite: CISD 21L
Advisory: CISB 11 or CISB 15
Structured query language (SQL) and Transact-SQL for Microsoft SQL Server. Topics include creating database objects, retrieving and updating data, writing scripts, developing stored procedures and functions, developing triggers, and creating cursors. Student must be enrolled in CISD 21L, a concurrent lab co-requisite.

**CISD 21L — Database Management - Microsoft SQL Server Laboratory**
Degree Applicable, CSU
27 hours lab
Corequisite: CISD 21
Laboratory for CISD 21 - Structured query language (SQL) and Transact-SQL for Microsoft SQL Server. Topics include creating database objects, retrieving and updating data, writing scripts, developing stored procedures/functions, triggers, and creating cursors. Student must be enrolled in CISD 21, a concurrent lecture co-requisite.

**CISD 31 — Database Management - Oracle** 3 Units
Degree Applicable, CSU
54 hours lecture
Corequisite: CISD 31L
Advisory: CISB 11 or CISB 15
Oracle database management system (DBMS) functions, concepts, and terms. Procedure Language/Structured Query Language (PL/SQL) is used to code, test, and implement stored procedures, functions, triggers, and packages. Relational database projects will be built using PL/SQL. Concurrent enrollment in CISD 31L is required.

**CISD 31L — Database Management - Oracle Laboratory** .5 Unit
Degree Applicable, CSU
27 hours lab
Corequisite: CISD 31
Laboratory for CISD 31 - Oracle database management system (DBMS) functions, concepts, and terms. Procedure Language/Structured Query Language (PL/SQL) is used to code, test, and implement stored procedures, functions, triggers, and packages. Relational database projects will be built using PL/SQL. Concurrent enrollment in CISD 31 is required.
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<th>Course Code</th>
<th>Title</th>
<th>Units</th>
<th>Description</th>
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</thead>
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| CISN 31    | Linux Operating System System Administration Laboratory                                      | .5    | 27 hours lab Corequisite: CISN 31
Laboratory for planning, installing and managing Linux Operating System and its graphical user interface; using Linux Shells and system administration commands; managing user accounts; installing hardware and software; and maintaining file systems and system resources. Concurrent enrollment in CISN 31 lecture course is required. |
| CISN 34    | Linux Networking and Security System Administration Laboratory                              | .5    | 27 hours lab Corequisite: CISN 34
Laboratory for installation and management of Linux operating system networks and security modules. Concept study and installation of: TCP/IP protocols, IP addressing, network protocols and servers, routers, and network applications. Creating Linux intranets and connecting to Internet. Student must be enrolled in CISN 34, a concurrent lecture course co-requisite. |
| CISN 34L   | Linux Networking and Security Laboratory                                                   | .5    | 54 hours lecture Corequisite: CISN 34L
Installation and management of Linux operating system networks and security modules. Concept study and installation of: TCP/IP protocols, IP addressing, network protocols and servers, routers, and network applications. Creating Linux intranets and connecting to Internet. Student must be enrolled in CISN 34L, a concurrent lecture course co-requisite. |
| CISD 11L   | Telecommunications/Networking Laboratory                                                    | .5    | 27 hours lab Corequisite: CISD 11
Telecommunications Networking Laboratory preparing students for first year Cisco Certified Network Associate (CCNA) and Network Certification. Telecommunications Networking focusing on network concepts and designs, network standards, Transmission Control Protocol and Internet Protocol (TCP/IP) version 4 (IPv4) and version 6 (IPv6), Open Systems Interconnection (OSI), network protocols, transmission media, switch, hardware architecture, local area network (LAN), wide area network (WAN), remote connectivity, Microsoft and Linux network operating system, network troubleshooting, maintenance, and upgrade, network and wireless security, system vulnerability, and network sniffing analysis. |
| CISN 21    | Windows Operating System System Administration                                             | 3     | 54 hours lecture Advisory: CISB 11 or CISB 15
Windows operating system installation and performance tweaking, including hardware and software issues, Windows system files, and Windows security. |
| CISN 24    | Window Server Network and Security Administration                                         | 3     | 54 hours lecture Corequisite: CISN 24L
Computer Network Administration and Security Management (CNASM) core. Microsoft Certified Systems Engineer (MCSE) topics, Active Directory security and policy management, Hyper-V virtual server installation, Dynamic Host Configuration Protocol (DHCP), Domain Name Service (DNS), file system security, logon script, network printing, web and terminal server, Network Address Translation (NAT), IPsec and secure Virtual Private Network (VPN). |
| CISN 24L   | Window Server Network and Security Administration Laboratory                                 | .5    | 27 hours lab Corequisite: CISN 24
Laboratory applications for Microsoft Certified Systems Engineer (MCSE) topics, Active Directory security and policy management, Hyper-V virtual server installation, Dynamic Host Configuration Protocol (DHCP), Domain Name Service (DNS), file system security, logon script, network printing, web and terminal server, Network Address Translation (NAT), IPsec and secure Virtual Private Network (VPN). Student must be enrolled in CISN 24 - Window Server Network and Security Administration, a concurrent lecture course co-requisite. |
| CISD 11    | Systems Analysis and Design System Administration                                          | 3.5   | 54 hours lecture Advisory: CISB 11
Understanding database needs and functions, creating data models, entity-relationship (E-R) and Unified Modeling Language (UML) diagrams, using normalization rules and principles to create databases, learning basic database administrator objectives and tasks, and understanding the role of data warehousing and data mining. |
| CISN 31    | Linux Operating System System Administration                                               | 3     | Degree Applicable, CSU |
| CISN 33    | Linux Operating System System Administration                                               | 3     | Degree Applicable, CSU |
| CISN 34    | Linux Operating System System Administration                                               | 3     | Degree Applicable, CSU |
| CISN 34L   | Linux Operating System System Administration                                               | .5    | Degree Applicable, CSU |
| CISD 40    | Database Design System Administration                                                     | 3     | Degree Applicable, CSU |
| CISD 21    | Windows Operating System System Administration                                              | 3     | Degree Applicable, CSU |
| CISD 24    | Window Server Network and Security Administration                                           | 3     | Degree Applicable, CSU |
| CISD 24L   | Window Server Network and Security Administration Laboratory                                  | .5    | Degree Applicable, CSU |
| CISD 11    | Systems Analysis and Design System Administration                                           | 3.5   | Degree Applicable, CSU |
| CISN 11    | Telecommunications/Networking System Administration                                        | 3     | Degree Applicable, CSU |
| CISN 11L   | Telecommunications/Networking Laboratory                                                    | .5    | Degree Applicable, CSU |
| CISD 11L   | Telecommunications/Networking Laboratory                                                    | .5    | Degree Applicable, CSU |
COURSE DESCRIPTIONS

CISN 51 — Cisco CCNA Networking and Routing 3 Units
Degree Applicable, CSU
54 hours lecture
Corequisite: CISN 51L
Advisory: CISN 11
Computer Network Administration and Security Management
(CNASM) core. Preparation for Cisco Certified Network Associ-
ate (CCNA) certification. Design and configuration of local area
networks (LAN), wide area networks (WAN), open systems inter-
connection (OSI) model, advanced subnetting, route summariza-
tion, command line interface (CLI), transmission control protocol
and Internet protocol (TCP/IP), Cisco internetwork operating
system (IOS), router, advanced switching, virtual LAN (VLAN),
access control lists (ACL), wireless and network security, Internet
protocol version 6 (IPv6), point-to-point protocol (PPP), voice
over Internet protocol (VoIP), and routing protocols including
static route, routing information protocol (RIP), enhanced interior
gateway routing protocol (EIGRP), and open shortest path first
(OSPF). Student must be enrolled in CISN 51 - Cisco CCNA Net-
working, a concurrent lab co-requisite. 54 hours lecture
Corequisite: CISN 51L
Lab to prepare for Cisco Certified Network Associate (CCNA) cer-
tification. Design and configuration of local area networks (LAN),
wide area networks (WAN), open systems interconnection (OSI)
model, advanced subnetting, route summarization, command
line interface (CLI), transmission control protocol and Internet
protocol (TCP/IP), Cisco internetwork operating system (IOS),
router, advanced switching, virtual LAN (VLAN), access control
lists (ACL), wireless and network security, Internet protocol
version 6 (IPv6), point-to-point protocol (PPP), voice over Internet
protocol (VoIP), and routing protocols including static route, rout-
ing information protocol (RIP), enhanced interior gateway routing
protocol (EIGRP), and open shortest path first (OSPF). Student
must be enrolled in CISN 51L, a concurrent lab co-requisite.
CISN 51L — Cisco CCNA Networking and Routing .5 Unit
Laboratory
Degree Applicable, CSU
27 hours lab
Corequisite: CISN 51
Planning, configuring, secure, install, and maintain latest virtual sys-
tems from prominent vendors.
CISN 61 — Virtualization Technology 3 Units
Degree Applicable
54 hours lecture
Advisory: CISB 11 or CISP 21 or CISN 31
Planning, configuring, secure, install, and maintain latest virtual sys-
tems from prominent vendors.
COMPUTER INFORMATION SYSTEMS: PROGRAMMING
CISP 10 — Principles of Object-Oriented Design 2 Units
Degree Applicable, CSU
27 hours lecture
27 hours lab
Advisory: Advisory corequisites - CISP 11 or CISB 15 or CISP 10
Object-oriented design, patterns, and use of UML in different
programming languages that will enable students to build large
packages and business applications.
CISP 11 — Programming in Visual Basic 3 Units
Degree Applicable, CSU, UC
54 hours lecture
Corequisite: CISP 11L
Advisory: CISP 11 and CISP 15 or CISP 10
Visual Basic programming in the business environment includes:
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. Student
must be concurrently enrolled in CISP 11L - Programming in Visual
Basic Lab.
CISP 11L — Programming in Visual Basic Laboratory .5 Unit
Degree Applicable, CSU, UC
27 hours lab
Corequisite: CISP 11
Laboratory for CISP 11 - Programming in Visual Basic. Planning
and writing object-oriented applications in the business environ-
ment, using Windows Forms and Web Forms; user interface
design classes, objects, properties, methods and events; control
structures, lists and arrays; printing and print previews; access-
ing a database. Concurrent enrollment in the lecture course CISP
11 - Programming in Visual Basic is required.
CISP 14 — Advanced Visual Basic .NET 3 Units
Degree Applicable, CSU, UC
54 hours lecture
Corequisite: CISP 14L
Advanced programming concepts using Visual Basic .NET:
designing, coding, testing and implementing object-oriented
multi-tier applications; displaying, searching, and updating SQL/
Client databases with both Windows Forms and Web Forms;
creating user controls, Web Services, and container classes;
creating help files, deploying applications, and developing mobile
applications. Student must be enrolled in CISP 14L, a concurrent
lab co-requisite.
CISP 14L — Advanced Visual Basic .NET Laboratory .5 Unit
Degree Applicable, CSU, UC
27 hours lab
Corequisite: CISP 14
Advisory: CISP 11 and CISP 11L
Laboratory for advanced programming concepts using Visual Ba-
sic .NET: designing, coding, testing and implementing object-ori-
ented multi-tier applications; displaying, searching, and updating
SQL/Client databases with both Windows Forms and Web Forms;
creating user controls, Web Services, and container classes;
creating help files, deploying applications, and developing mobile
applications. Student must be enrolled in CISP 14, a concurrent
lecture co-requisite.
CISP 21 — Programming in Java 3 Units
Degree Applicable, CSU
54 hours lecture
Corequisite: CISP 21L
Laboratory for advanced programming concepts using Java Ba-
sic .NET: designing, coding, testing and implementing object-ori-
ented multi-tier applications; displaying, searching, and updating
SQL/Client databases with both Windows Forms and Web Forms;
creating user controls, Web Services, and container classes;
creating help files, deploying applications, and developing mobile
applications. Student must be enrolled in CISP 21, a concurrent
lecture co-requisite.
CISP 21L — Programming in Java Laboratory .5 Unit
Degree Applicable, CSU, UC
27 hours lab
Corequisite: CISP 21
Laboratory for CISP 21 - Programming in Java. Programming exercises focusing on
design and development of object-oriented business programs
and applications, documentation and debugging techniques,
user-interface, objects, various data types, methods, events,
elementary control structures, arrays, and inheritance. Student
must take CISP 21L concurrently.
CISP 24 — Advanced Java Programming 3 Units
Degree Applicable, CSU
54 hours lecture
Corequisite: CISP 24L
Advanced object-oriented programming using Java: designing,
coding, testing and implementing multi-tier applications in seri-
alization, multithreading, Advanced Swing Components (ASC),
networking, server-side technology which include servlets,
remote method invocation (RMI), Java server pages, Java Data-
base Connectivity (JDBC), public key infrastructure (PKI), mobile
applications and security. Student must be enrolled in CISP 24L, a
concurrent lab co-requisite.
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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Degree Applicable</th>
<th>University</th>
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<tr>
<td>CISP 24L</td>
<td>Advanced Java Laboratory</td>
<td>0.5</td>
<td>Degree Applicable, CSU, UC</td>
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<tr>
<td>CISP 24L</td>
<td>Advanced C++ Programming Laboratory</td>
<td>0.5</td>
<td>Degree Applicable, CSU, UC</td>
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<tr>
<td>CISP 31L</td>
<td>Programming in C++ Laboratory</td>
<td>0.5</td>
<td>Degree Applicable, CSU, UC</td>
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<td>CISP 34L</td>
<td>Programming in C++ Laboratory</td>
<td>0.5</td>
<td>Degree Applicable, CSU, UC</td>
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<td>CISP 41L</td>
<td>Programming in C# Laboratory</td>
<td>0.5</td>
<td>Degree Applicable, CSU, UC</td>
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<tr>
<td>CISP 61L</td>
<td>Mobile Device Programming Laboratory</td>
<td>0.5</td>
<td>Degree Applicable, CSU, UC</td>
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<tr>
<td>CISP 62L</td>
<td>Mobile Device Programming Laboratory</td>
<td>0.5</td>
<td>Degree Applicable, CSU, UC</td>
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**Course Descriptions**

- **CISP 24L — Advanced Java Laboratory**: 27 hours lab. Corequisite: CISP 24. Advisory: CISP 21 and CISP 21L. Laboratory for advanced programming concepts using Java: designing, coding, testing and implementing multi-tier applications in serialization, multithreading, Advanced Swing Components (ASC), networking, server-side technology which include servlets, remote method invocation (RMI), Java server pages, Java Database Connectivity (JDBC), public key infrastructure (PKI), mobile applications and security. Student must be enrolled in CISP 24, a concurrent lecture co-requisite.

- **CISP 31 — Programming in C++**: 54 hours lecture. Corequisite: CISP 31L. Advisory: CISP 10 or (CISP 11 and CISP 11L) or (CISP 21 and CISP 21L). Object-oriented programming in C++ including object-oriented design, documentation, and debugging techniques. Elementary control structures, classes, overload operators and functions, and single and multiple inheritance. Student must be enrolled in CISP 31L, a concurrent laboratory co-requisite.

- **CISP 31L — Programming in C++ Laboratory**: 27 hours lab. Corequisite: CISP 31. Laboratory for object-oriented programming in C++ including object-oriented design, documentation, and debugging techniques. Elementary control structures, classes, overload operators and functions, and single and multiple inheritance. Student must be enrolled in CISP 31, a concurrent lecture co-requisite.

- **CISP 34 — Advanced C++ Programming**: 54 hours lecture. Corequisite: CISP 34L. Advisory: CISP 31 and CISP 31L. Object-oriented programming in C++ concepts and principles. Covers data structures: vectors, linked lists, queues, stacks and hash tables. Also graphical-user interface (GUI), database access and web services. Student must be enrolled in CISP 34L, a concurrent lab co-requisite.

- **CISP 34L — Advanced C++ Programming Laboratory**: 27 hours lab. Corequisite: CISP 34. Laboratory for object-oriented programming in C++ concepts. Covers principles covers data structures: vectors, linked lists, queues, stacks and hash tables. Also graphical-user interface (GUI), database access and web services. Student must be enrolled in CISP 34, a concurrent lecture co-requisite.

- **CISP 41 — Programming in C#**: 54 hours lecture. Corequisite: CISP 41L. Advisory: CISP 10, CISP 11, CISP 15. Programming in C# using Windows Forms and Web Forms. Course covers control structures (loops, if statements, and switch blocks), database access, multiple forms, and object-oriented programming concepts. Student must be enrolled in CISP 41L, a concurrent lab co-requisite.

- **CISP 41L — Programming in C# Laboratory**: 27 hours lab. Corequisite: CISP 41. Laboratory for programming in C# using Windows Forms and Web Forms. Course covers control structures (loops, if statements, and switch blocks), database access, multiple forms, and object-oriented programming concepts. Student must be enrolled in CISP 41, a concurrent lecture co-requisite.

- **CISP 61 — Introduction to Game Programming**: 54 hours lecture. Corequisite: CISP 61L. Advisory: CISP 31 and CISP 34. Game programming technologies and techniques, including programming languages and IDEs (Integrated Development Environment), libraries and engines, development design and principles, and application of game specific programming techniques. Student must be enrolled in CISP 61L concurrently.

- **CISP 61L — Introduction to Game Programming Laboratory**: 27 hours lab. Corequisite: CISP 61. Provides practical implementation of game development using different software packages. Student must be enrolled in CISP 61, a concurrent lecture co-requisite.

- **CISP 62 — Introduction to OpenGL**: 54 hours lecture. Corequisite: CISP 62L. Advisory: CISP 34 and CISP 34L. Programming and creating 3D animated games with OpenGL.

- **CISP 62L — Introduction to OpenGL Laboratory**: 27 hours lab. Corequisite: CISP 62. The course provides practical implementation of OpenGL programming. Student must take CISP 62, a concurrent lecture co-requisite.

**Computer Information Systems: Security**

- **CISS 11 — Practical Computer Security**: 2 Units. Degree Applicable

- **CISS 13 — Principles of Information Systems Security**: 4 Units. Degree Applicable

Certified Information Systems Security Professional (CISSP) exam course preparation including legal, business, and ethical topics.
Course Descriptions

■ CISS 15 — Operating Systems Security 3 Units

Degree Applicable

54 hours lecture

Advisory: CISB 11 or CISN 21

Operating systems security concepts and techniques: covers how attackers operate, how viruses strike, strengthening operating systems, repelling attacks, and applying security techniques to different operating systems like Windows, Unix, Linux, etc.

■ CISS 21 — Network Vulnerabilities and Countermeasures 3 Units

Degree Applicable, CSU

54 hours lecture

Corequisite: CISS 21L

Advisory: CISN 11 or CISN 24 or CISN 51

Network vulnerabilities from a hacker’s perspective. Cyber security legal and ethical issues. Written security, use policy, and instance response policy. Scanning and penetration tests, vulnerability assessments and countermeasures for Windows and Linux operating systems. Secure programming, virtual private network (VPN), cryptography, wireless, Web, and remote access securities. Student must be enrolled in CISS 21L, a concurrent lab co-requisite.

■ CISS 21L — Network Vulnerabilities and Countermeasures Laboratory .5 Unit

Degree Applicable, CSU

27 hours lab

Corequisite: CISS 21

Laboratory for network vulnerabilities from a hacker’s perspective. Cyber security legal and ethical issues. Written security, use policy, and instance response policy. Scanning and penetration tests, vulnerability assessments and countermeasures for Windows and Linux operating systems. Secure programming, virtual private network (VPN), cryptography, wireless, Web, and remote access securities. Student must be enrolled in CISS 21L, a concurrent lecture co-requisite.

■ CISS 23 — Network Analysis, Intrusion Detection/Prevention Systems 3 Units

Degree Applicable, CSU

54 hours lecture

Corequisite: CISS 23L

Advisory: CISN 11 or CISN 24 or CISN 51

WireShark, Netflow network analyzer, and computer forensic tools to troubleshoot network problems and monitor network traffics. Detect and block network attacks with standalone Cisco Intrusion Detection Systems and Intrusion Prevention Systems (IDS/IPS), integrated Cisco Adaptive Security Appliance (ASA) IPS, Linux Snort and Windows IDS/IPS. Student must be enrolled in CISS 23L, a concurrent lab co-requisite.

■ CISS 23L — Network Analysis, Intrusion Detection/Prevention Systems Laboratory .5 Unit

Degree Applicable, CSU

27 hours lab

Corequisite: CISS 23

Laboratory course using WireShark, Netflow network analyzer, and computer forensic tools to troubleshoot network problems and monitor network traffics. Detect and block network attacks with standalone Cisco Intrusion Detection Systems and Intrusion Prevention Systems (IDS/IPS), integrated Cisco Adaptive Security Appliance (ASA) IPS, Linux Snort and Windows IDS/IPS. Student must be enrolled in CISS 23, a concurrent lecture co-requisite.

■ CISS 25 — Network Security and Firewalls 3 Units

Degree Applicable, CSU

54 hours lecture

Corequisite: CISS 25L

Advisory: (CISN 11 and CISN 11L) or (CISN 24 and CISN 24L) or (CISN 51 and CISN 51L)

Design, configure, and implement firewalls to secure enterprise, medium, and small businesses networks. Cisco Adaptive Security Appliance (ASA) with intrusion prevention system (IPS) and Linux firewall with IPS integration. Site to site and remote client Virtual Private Network (VPN), Access Control Lists (ACL), content filtering, Confidentiality Integrity Availability (CIA), Radius, and Certificate Authentication (CA). Cisco ASA and Linux firewall troubleshooting technique. Student must enroll in CISS 25L concurrently.

■ CISS 25L — Network Security and Firewalls Laboratory .5 Unit

Degree Applicable, CSU

27 hours lab

Corequisite: CISS 25

Laboratory to design, configure, and implement firewall to secure enterprise, medium, and small businesses networks. Cisco Adaptive Security Appliance (ASA) with intrusion prevention system (IPS) and Linux firewall with IPS integration. Site to site and remote client Virtual Private Network (VPN), Access Control Lists (ACL), content filtering, Confidentiality Integrity Availability (CIA), Radius, and Certificate Authentication (CA). Cisco ASA and Linux firewall troubleshooting technique. Student must enroll in CISS 25, a concurrent lecture co-requisite.

■ CISS 27 — Cyber Defense 1 Unit

Degree Applicable

54 hours lab

Advisories: CISN 11 and CISN 11L

Cyber security hands-on activities in defending, responding, mitigating, and analyzing attacks through IT infrastructure and application service vulnerabilities. Prepare students to secure, configure, monitor, and analyze computer, switch, router, firewall, Intrusion Prevention Systems (IPS), Voice over IP (VoIP), smart phone, and application services such as Web, email, Structured Query Language (SQL) database, Domain Name System (DNS), and Virtual Private Network (VPN).

■ CISS 29 — CNASM Service Learning 1 Unit

Degree Applicable

54 hours lab

Advisory: CISB 11 or CISB 15 or CISB 16

54 hours lab

Integrate knowledge learned from Computer Network Administration and Security Management courses through lab activities and community services.

COMPUTER INFORMATION SYSTEMS: WEB APPLICATIONS

■ CISS 15 — Web Site Development 3.5 Units

Degree Applicable, CSU

54 hours lecture

27 hours lab

Advisory: CISB 15 or CISB 16

Plan, develop, implement, publish and maintain Web sites with a professional visual Web-authoring application, including working with text and images, internal and external hyperlinks, image maps, tables, Cascading Style Sheets (CSS), Web page content, Web forms, multimedia objects (Flash text, Flash buttons, sounds, and video), interactions and behaviors, and Web page templates. Principles of Web site structures, documentation, management, and maintenance will be discussed.

■ CISS 17 — HTML, CSS and JavaScript Programming 3 Units

Degree Applicable, CSU

54 hours lecture

Advisory: CISB 11

Plan, program, implement, publish and maintain Web sites using Hypertext Markup Language version 5 (HTML5), Cascading Style Sheets version 3 (CSS3), and JavaScript. Includes working with text, semantic and multimedia objects, tables, forms, Application Programming Interfaces (APIs), Document Object Model (DOM), cross-browser compatibility, markup validation, client-side interactivity, and principles of web page design, web site construction, documentation, and publishing.
CISW 21 — Secure Web Programming with ASP.NET  3 Units
Degree Applicable, CSU
54 hours lecture
Corequisite: CISW 21L
Advisory: CISB 15
Secure Web programming using programming, scripting and markup languages such as XML (eXtensible Markup Language), XHTML (XML HyperText Markup Language), Dynamic HTML, Javascript, AJAX (Asynchronous Javascript and XML), and ASP.NET (Active Server Pages .NET) with VB.NET (Visual Basic .NET) for designing user interfaces, processing user input, and accessing Web servers and databases. Student must be enrolled in CISW 21L, a concurrent lab co-requisite.

CISW 21L — Secure Web Programming with ASP.NET Laboratory  .5 Unit
Degree Applicable, CSU
27 hours lab
Corequisite: CISW 21 Laboratory for secure Web programming using programming, scripting and markup languages such as XML (eXtensible Markup Language), XHTML (XML HyperText Markup Language), Dynamic HTML, Javascript, AJAX (Asynchronous Javascript and XML), and ASP.NET (Active Server Pages .NET) with VB.NET (Visual Basic .NET) for designing user interfaces, processing user input, and accessing Web servers and databases. Student must be enrolled in CISW 21, a concurrent lecture co-requisite.

CISW 24 — Secure Server Side Web Programming  3 Units
Degree Applicable
54 hours lecture
Corequisite: CISW 24L
Secure web programming to create user interfaces, extract information and manage databases, manage files, format reports, and access web servers by using Practical Extraction and Report Language (PERL), Python, Ruby or any Web scripting or programming language. Student must be enrolled in CISW 24L, a concurrent lab co-requisite.

CISW 24L — Secure Server Side Web Programming Laboratory  .5 Unit
Degree Applicable
27 hours lab
Corequisite: CISW 24 Laboratory for secure web programming to create user interfaces, extract information and manage databases, manage files, format reports, and access web servers by using Practical Extraction and Reporting Language (PERL), Python, Ruby or any Web scripting or programming language. Student must be enrolled in CISW 24, a concurrent lecture co-requisite.

CISW 31 — Secure Web Servers  3 Units
Degree Applicable
54 hours lecture
Corequisite: CISW 31L
Advisory: (CISN 34 and CISN 34L) or (CISW 24 and CISW 24L)
Plan, install, and manage secure Apache Web servers using server side programming language like PHP (PHP: Hypertext Preprocessor) to access, manage, and secure MySQL databases. Student must be enrolled in CISW 31L, a concurrent lab co-requisite.

CISW 31L — Secure Web Servers Laboratory  .5 Unit
Degree Applicable
27 hours lab
Corequisite: CISW 31 Laboratory for secure web servers to create user interfaces, extract information and manage databases, manage files, format reports, and access web servers by using Practical Extraction and Reporting Language (PERL), Python, Ruby or any Web scripting or programming language. Student must be enrolled in CISW 31L, a concurrent lecture co-requisite.

CISW 41 — XML Secure Programming  3 Units
Degree Applicable
54 hours lecture
Advisory: CIS 21 and CISW 21L
Principles, components and secure programming of Extensible Markup Language (XML), also includes Extensible Stylesheet Language Transformation (XSLT), XML Path Language (XPath), Extensible Stylesheet Language Formatting Objects (XSL-FO), Document Type Definition (DTD), XML Schema, and XML Namespaces.

CSCI 110 — Fundamentals of Computer Science  3.5 Units
Degree Applicable, CSU
54 hours lecture
27 hours lab
Prerequisite: MATH 71 or MATH 71B or MATH 71X
Advisory: Eligibility for ENGL 1A
Computer hardware and software. General computer organization and information representation. Binary and hexadecimal number systems. Algorithm design and problem-solving techniques. Introduction to programming using a high level language (C, C++ or Java.)

CSCI 140 — C++ Language and Object Development  4 Units
Degree Applicable, CSU, UC
54 hours lecture
54 hours lab
Prerequisite: CSCI 110
For computer science, mathematics, engineering and other science students. C++ programming and object-oriented paradigm. Control structures, functions, arrays, pointers and strings, classes and data abstraction, C++ object programming, operator overloading, inheritance, virtual functions and polymorphism, stream input and output, templates, exception handling, file processing. Data structures in C++, string processing and recursion.

CSCI 145 — Java Language and Object Oriented Programming  4 Units
Degree Applicable, CSU, UC
54 hours lecture
54 hours lab
Prerequisite: CSCI 110
Java language and object oriented programming with Java as well as general concepts and techniques of computer programming. Topics include: Java expressions, flow control, methods and program structure, Java classes, overloading, object references, inheritance, Java library packages, exceptions, file I/O, applets, GUI, and event handling. A course for computer science, engineering, mathematics, and other science students.

CSCI 150 — Assembly Language/Machine Architecture  3.5 Units
Degree Applicable, CSU, UC
54 hours lecture
27 hours lab
Prerequisite: CSCI 110
Advisory: CSCI 140 or CSCI 145
Organization and operation of real computer systems at the assembly language level using the Intel 80x86 family of processors; mapping statements and constructs in a high-level language onto sequences of machine instructions; internal representations of simple data types and structures; numerical computation, noting various data representation errors and potential procedural errors; investigation of basic principles of operating systems; and programming language translation process.

CSCI 150L — Assembly Language Laboratory  1 Unit
Degree Applicable, CSU, UC
(May be taken for Pass/No Pass only)
54 hours lab
Corequisite: CSCI 150
Advisory: CSCI 140 or CSCI 145
Complements the lecture material in CSCI 150. Development/ debugging of assembly language programs.
COURSE DESCRIPTIONS

CSCI 170 — Introduction to Unix Operating System 3.5 Units
Degree Applicable, CSU, UC
54 hours lecture
27 hours lab
Prerequisite: CSCI 110
For computer science, mathematics, engineering and other science students. Introduction to the UNIX operating system, system administration and networking. Topics include: process synchronization and communication mechanisms, process management, scheduling and protection, memory organization and management, virtual memory, I/O devices management, file systems, networking, system administration for UNIX.

CSCI 190 — Discrete Mathematics Applied to Computer Science 4 Units
Degree Applicable, CSU, UC
72 hours lecture
Prerequisite: MATH 71 or equivalent
A study of set theory, propositional and predicate calculus, modular arithmetic, counting techniques, combinatorics, mathematical induction, recursion, binary search trees, graphs and finite probability. For students in computers science, engineering, mathematics and other sciences.

CSCI 220 — Data Structures I 3.5 Units
Degree Applicable, CSU, UC
54 hours lecture
27 hours lab
Prerequisite: CSCI 140 or CSCI 145
Abstract data types and running time analysis tools. Linear data structures including sets, stacks, queues, and linked lists. Trees, binary search trees, heaps, and priority queues. Many procedures are discussed using an algorithmic language and selected problems are programmed in a higher level language.

CSCI 220L — Data Structures I Laboratory 1 Unit
Degree Applicable, CSU, UC
(May be taken for Pass/No Pass only)
54 hours lab
Corequisite: CSCI 220
An independent study program designed to complement the lecture material presented in CSCI 220, Data Structures I. Hands-on computer work on topics including abstract data types, running time analysis tools, linear data structures, linked lists, trees, binary search trees, heaps, and priority queues. Many procedures are discussed using an algorithmic language and selected problems are programmed in a higher level language.

CSCI 230 — Data Structures II 3.5 Units
Degree Applicable, CSU, UC
54 hours lecture
27 hours lab
Prerequisite: CSCI 220
Basic searching/sorting algorithms, hashing, graphs, memory/disk management, indexing, B-trees, advanced tree structures and analysis.

CSCI 230L — Data Structures II Laboratory 1 Unit
Degree Applicable, CSU, UC
(May be taken for Pass/No Pass only)
54 hours lab
Corequisite: CSCI 230
An independent study program designed to complement the lecture material presented in CSCI 230, Data Structures II. Hands-on computer work will include problem solving in basic searching/sorting algorithms, hashing, graphs, memory/disk management, indexing, B-trees, advanced tree structures and analysis.

CNET 50 — PC Servicing 4 Units
Degree Applicable
54 hours lecture
54 hours lab
Advisory: CNET 54
PC and peripheral servicing techniques, preventative maintenance, hardware configurations, software configurations, software diagnostics, and the use of test equipment.

CNET 52 — PC Operating Systems 4 Units
Degree Applicable
54 hours lecture
54 hours lab
Advisory: ELEC 50A and ELEC 50B taken prior or concurrently
Current operating systems required for A+ and Network+ Certification and general computer servicing. Includes: identification of major components, installation, configuration, upgrading and troubleshooting.

CNET 54 — PC Troubleshooting 4 Units
Degree Applicable
54 hours lecture
54 hours lab
Advisory: CNET 50 taken prior
Personal computer (PC) servicing. Includes isolating, identifying, and repairing specific problems in the computer environment at the hardware level. Prepares students for the A+ Certification Exam.

CNET 56 — Computer Networks 4 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 Exam. All aspects of the A+ Essentials and A+ Practical Application test modules will be stressed through both lecture review and test simulation software.

CNET 60 — A+ Certification Preparation 2 Units
Degree Applicable
36 hours lecture
Advisory: CNET 54
Prepares the student and qualified computer technician for the A+ Certification Exam. All aspects of the A+ Essentials and A+ Practical Application test modules will be stressed through both lecture review and test simulation software.

CNET 62 — Network+ Certification Preparation 2 Units
Degree Applicable
36 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 2 Units
Degree Applicable
36 hours lecture
Advisory: CNET 58
Prepares the computer/network service technician for the CompTIA Server+ certification examination.
CNET 66 — Security+ Certification Preparation 2 Units
Degree Applicable
36 hours lecture
36 hours lecture
Advisory: CNET 54 and CNET 56
Prepares the computer/network service technician for the CompTIA sponsored Security+ Certification examination. Security information is covered only as it pertains to enabling the service technician to troubleshoot a computer system that may have a security problem.

CORRECTIONAL SCIENCES
CORS 10 — Introduction to Correctional Sciences 3 Units
Degree Applicable, CSU
54 hours lecture
The field of corrections: county jail, probation, the California Youth Authority and the Department of Corrections as members of the Criminal Justice System. Includes philosophy, past and present practices and the criminal justice and correctional processes.

COUNSELING
COUN 1 — Introduction to College 1 Unit
Degree Applicable, CSU, UC
May be taken for Pass/No Pass only
18 hours lecture
Higher education and the college experience including orientation to college life and higher education resources. Explores graduation, transfer, career options, factors in educational decision making, and educational planning.

COURS 1H — Introduction to College - Honors 1 Unit
Degree Applicable, CSU, UC
18 hours lecture
Prerequisite: Acceptance into Honors Program.
Higher education and the college experience. Orientation to college life and resources. Explores graduation, transfer, career options, factors in educational decision making and educational planning.

COUN 2 — College Success Strategies 3 Units
Degree Applicable, CSU, UC
May be taken for option of letter grade or Pass/No Pass
54 hours lecture
Strategies and techniques to be an effective college student including time management, study skills, college resources, career exploration and educational planning. Develop skills necessary to reach educational and career goals.

COUN 5 — Career/Life Planning 3 Units
Degree Applicable, CSU
54 hours lecture
Prerequisite: Eligibility for ENGL 68
Evaluates career options using a systematic approach to self-exploration and the career and life planning process including identification of values, interests, skills and self-management style. Develop decision making and goal setting skills and identify barriers to success. Explores careers and job search techniques.

COUN 51 — Career Planning 1 Unit
Degree Applicable, CSU
18 hours lecture
An abbreviated career planning course designed for students who want assistance in making informed career decisions. A variety of assessments, inventories, and computer generated information will be used to help students explore careers and majors.

COUN 54 — Single Parent Academy 3 Units
Degree Applicable
54 hours lecture
Explores and develops strategies and techniques to be an effective college student as a single parent. Strategies include time management, study skills, college resources, decision making, goal setting, career exploration and educational planning.

COUN 99A — Special Projects in Counseling .5 to 3 Units
Degree Applicable, CSU
8 to 48 hours lecture
Opportunity to explore academic interest and aspirations in greater depth. Instructor’s authorization is required. A field trip may be required.

DNCE 1 — Ballet Fundamentals .5 to 2 Units
Degree Applicable, CSU, UC
(May be taken for option of letter grade or Pass/No Pass)
36 to 108 hours lab
Introduces fundamental vocabulary, technique, and movement combinations for ballet. Includes floor work, barre work, center work, floor progressions, and musicality and phrasing.

DNCE 2A — Ballet I .5 to 1 Unit
Degree Applicable, CSU, UC
(May be taken for option of letter grade or Pass/No Pass)
36 to 54 hours lab
Beginning vocabulary, technique, and movement combinations for ballet. Includes barre work, center floor work, floor progressions, preparation for turning, and musicality and phrasing.

DNCE 2B — Ballet II .5 to 1 Unit
Degree Applicable, CSU, UC
(May be taken for option of letter grade or Pass/No Pass)
36 to 54 hours lab
Intermediate technique, vocabulary and movement combinations for ballet. Includes intermediate barre work, demi-pointe work, use of epaulement and increasingly difficult center floor combinations. Students who repeat this course will improve proficiency through continued instruction and practice.

DNCE 3 — Ballet Performance .5 to 1 Unit
Degree Applicable, CSU, UC
(May be taken four times for credit)
(May be taken for option of letter grade or Pass/No Pass)
36 to 54 hours lab
Introduces the experienced dance student to the performance aspect of ballet. Includes advanced barre work, center work, floor progressions and performance of classical ballet variations.

DNCE 4 — Choreography .5 to 2 Units
Degree Applicable, CSU, UC
(May be taken for option of letter grade or Pass/No Pass)
36 to 108 hours lab
Prerequisite: DNCE 12A or DNCE 12B or DNCE 13
Designed for the experienced dancer to learn the techniques of choreography, forms and compositional design.

DNCE 8 — Latin Dance I .5 to 1 Unit
Not Degree Applicable, CSU
(May be taken for option of letter grade or Pass/No Pass)
36 to 54 hours lab
Latin styles of dance. Includes Cha Cha, Samba, Rumba, Pasodoble and Jive.
### Course Descriptions

#### DNCE 10 — Modern Fundamentals
0.5 to 1 Unit
Degree Applicable, CSU
(May be taken for option of letter grade or Pass/No Pass)
36 to 54 hours lab
Fundamental vocabulary, technique, and movement combinations for Modern Dance. Includes floor work, center work, floor progressions, musicality and phrasing.

#### DNCE 11A — Social Dance Forms I
0.5 to 1 Unit
Degree Applicable, CSU, UC
(May be taken for option of letter grade or Pass/No Pass)
36 to 54 hours lab
Fundamentals of music, dance positions, dance formations and choreography to be used in the study of, but not limited to Swing, Salsa, Waltz, Foxtrot and Tango. Off-campus assignment may be required.

#### DNCE 11B — Social Dance Forms II
0.5 to 1 Unit
Degree Applicable, CSU, UC
(May be taken for option of letter grade or Pass/No Pass)
36 to 54 hours lab
Advanced social dance techniques. Improve fundamentals of music, dance positions, dance formations and choreography to be used in the study of, but not limited to Swing, Salsa, Waltz, Foxtrot and Tango. Off-campus assignment may be required.

#### DNCE 12A — Modern I
0.5 to 1 Unit
Degree Applicable, CSU, UC
(May be taken for option of letter grade or Pass/No Pass)
36 to 54 hours lab
Basic vocabulary, technique, and movement combinations for modern dance.

#### DNCE 12B — Modern II
0.5 to 1 Unit
Degree Applicable, CSU, UC
(May be taken for option of letter grade or Pass/No Pass)
36 to 54 hours lab
Intermediate technique and movement combinations for modern dance. Students who repeat this course will improve skills through further instruction and practice.

#### DNCE 13 — Modern Performance
0.5 to 2 Units
Degree Applicable, CSU, UC
(May be taken for option of letter grade or Pass/No Pass)
36 to 108 hours lab
The experienced dance student studies the performance aspects of modern dance including advanced technique, choreographic elements and performance. Students who repeat this course will improve proficiency through continued instruction and practice.

#### DNCE 14A — Jazz I
0.5 to 1 Unit
Degree Applicable, CSU, UC
(May be taken for option of letter grade or Pass/No Pass)
36 to 54 hours lab
Beginning vocabulary, technique, and movement combinations for jazz dance. Includes warm-up, progressions and center floor routines.

#### DNCE 14B — Jazz II
0.5 to 1 Unit
Degree Applicable, CSU, UC
(May be taken for option of letter grade or Pass/No Pass)
36 to 54 hours lab
Intermediate vocabulary, technique, and movement combinations for jazz dance. Includes warm-up, progressions and center floor routines.

#### DNCE 15 — Jazz Performance
0.5 to 1 Unit
Degree Applicable, CSU, UC
(May be taken for option of letter grade or Pass/No Pass)
36 to 54 hours lab
Introduces the experienced dancer to the performance styles and techniques of jazz dance. Includes advanced warm-up, floor progressions and performance of complex jazz dance routines.

#### DNCE 17 — Jazz Fundamentals
0.5 to 2 Units
Degree Applicable, CSU, UC
(May be taken for option of letter grade or Pass/No Pass)
36 to 108 hours lab
Introduces fundamental vocabulary, technique, and movement combinations for jazz dance. Includes floor work, center work, floor progressions, routines and musicality and phrasing.

#### DNCE 18A — Tap I
0.5 to 1 Unit
Degree Applicable, CSU, UC
(May be taken for option of letter grade or Pass/No Pass)
36 to 54 hours lab
Beginning level technique, rhythms and routines for tap dance.

#### DNCE 18B — Tap II
0.5 to 1 Unit
Degree Applicable, CSU, UC
(May be taken for option of letter grade or Pass/No Pass)
36 to 54 hours lab
Intermediate technique, rhythms and routines for tap dance.

#### DNCE 19 — Tap Performance
0.5 to 1 Unit
Degree Applicable, CSU, UC
(May be taken for option of letter grade or Pass/No Pass)
36 to 54 hours lab
Introduces the experienced dancer to the performance aspects of tap by providing advanced techniques leading to the performance of compositions.

#### DNCE 20 — Theatre Dance I
0.5 to 1 Unit
Degree Applicable, CSU, UC
(May be taken for option of letter grade or Pass/No Pass)
36 to 54 hours lab
Advanced theatre dance variations for the technically skilled dancer drawn from a variety of theater musicals and/or movies. Includes concepts of acting and staging incorporated with musical theatre choreography.

#### DNCE 22 — Dance Rehearsal
0.5 to 1 Unit
Degree Applicable, CSU, UC
(May be taken for option of letter grade or Pass/No Pass)
36 to 54 hours lab
Designed for the experienced dancer to apply previously learned choreographic skill, to conduct stage rehearsals and learn costume techniques.

#### DNCE 24 — Dance Production
1 to 2 Units
Degree Applicable, CSU, UC
(May be taken for option of letter grade or Pass/No Pass)
54 to 108 hours lab
Designed for the experienced dancer to work in a rehearsal environment and to be a participant in the beginning elements of concert production.

#### DNCE 28 — Theater Dance II
0.5 to 1 Unit
Degree Applicable, CSU, UC
(May be taken for option of letter grade or Pass/No Pass)
36 to 54 hours lab
Simple dance excerpts from various theater musicals and/or movies.

#### DNCE 29 — Theater Dance III
0.5 to 1 Unit
Degree Applicable, CSU, UC
(May be taken for option of letter grade or Pass/No Pass)
36 to 54 hours lab
Advanced theatre dance variations for the technically skilled dancer drawn from a variety of theater musicals and/or movies. Includes concepts of acting and staging incorporated with musical theatre choreography.

#### DNCE 30 — Contemporary Dance
0.5 to 1 Unit
Degree Applicable, CSU, UC
(May be taken for option of letter grade or Pass/No Pass)
36 to 54 hours lab
Opportunity for the beginning to advanced dancer to experience different techniques of leading contemporary dancers and choreographers.

#### DNCE 31 — Classical Dance
0.5 to 2 Units
Degree Applicable, CSU, UC
(May be taken for option of letter grade or Pass/No Pass)
36 to 108 hours lab
Advanced ballet repertoire focusing on the different schools of technique including Balanchine, Bournonville, and Vaganova.

#### DNCE 32 — Commercial Dance
0.5 to 1 Unit
Degree Applicable, CSU, UC
(May be taken for option of letter grade or Pass/No Pass)
36 to 54 hours lab
Provides the intermediate to advanced jazz dancer the opportunity to experience the different techniques of leading commercial dancers, teachers and choreographers.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Units</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>DNCE 33</td>
<td>Improvisation</td>
<td>.5 to 1</td>
<td>Provides students with the practical experience to assist an instructor in the creation and instruction of a dance class. Includes multi-cultural dance interpretations.</td>
</tr>
<tr>
<td>DNCE 34</td>
<td>Dance Directives</td>
<td>.5 to 1</td>
<td>Provides the intermediate or advanced student the practical experience to assist an instructor in the creation and instruction of a dance class.</td>
</tr>
<tr>
<td>DNCE 35</td>
<td>Repertory</td>
<td>2</td>
<td>Provides opportunities for the advanced dancer to learn choreography and to perform repertory pieces at workshops and special events. Students who repeat this course will improve skills through further instruction and practice.</td>
</tr>
<tr>
<td>DNCE 36</td>
<td>Commercial Dance II</td>
<td>.05 to 1</td>
<td>Provides the opportunity for the advanced dancer to learn choreography and to perform repertory pieces at workshops and special events. Students who repeat this course will improve skills through further instruction and practice.</td>
</tr>
<tr>
<td>DNCE 39A</td>
<td>Alignment and Correctives I</td>
<td>.5 to 1</td>
<td>Provides the intermediate or advanced student the practical experience to assist an instructor in the creation and instruction of a dance class.</td>
</tr>
<tr>
<td>DNCE 39B</td>
<td>Alignment and Correctives II</td>
<td>.5 to 1</td>
<td>Provides the opportunity for the advanced dancer to learn choreography and to perform repertory pieces at workshops and special events. Students who repeat this course will improve skills through further instruction and practice.</td>
</tr>
<tr>
<td>DNCE 40</td>
<td>Conditioning Through Dance</td>
<td>.5 to 1</td>
<td>Provides the opportunity for the advanced dancer to learn choreography and to perform repertory pieces at workshops and special events. Students who repeat this course will improve skills through further instruction and practice.</td>
</tr>
<tr>
<td>DN-T 18</td>
<td>Introduction to Dance</td>
<td>3</td>
<td>Provides the opportunity for the advanced dancer to learn choreography and to perform repertory pieces at workshops and special events. Students who repeat this course will improve skills through further instruction and practice.</td>
</tr>
<tr>
<td>DN-T 20</td>
<td>History and Appreciation of Dance</td>
<td>3</td>
<td>Provides the opportunity for the advanced dancer to learn choreography and to perform repertory pieces at workshops and special events. Students who repeat this course will improve skills through further instruction and practice.</td>
</tr>
<tr>
<td>DN-T 27</td>
<td>Theory and Principles of Pilates</td>
<td>3</td>
<td>Provides the opportunity for the advanced dancer to learn choreography and to perform repertory pieces at workshops and special events. Students who repeat this course will improve skills through further instruction and practice.</td>
</tr>
<tr>
<td>DN-T 28</td>
<td>Functional Anatomy for Pilates</td>
<td>2</td>
<td>Provides the opportunity for the advanced dancer to learn choreography and to perform repertory pieces at workshops and special events. Students who repeat this course will improve skills through further instruction and practice.</td>
</tr>
<tr>
<td>DN-T 29</td>
<td>Teaching Pilates Mat Repertoire</td>
<td>1.5</td>
<td>Provides the opportunity for the advanced dancer to learn choreography and to perform repertory pieces at workshops and special events. Students who repeat this course will improve skills through further instruction and practice.</td>
</tr>
<tr>
<td>DN-T 30</td>
<td>Teaching Pilates Reformers Repertoire</td>
<td>1.5</td>
<td>Provides the opportunity for the advanced dancer to learn choreography and to perform repertory pieces at workshops and special events. Students who repeat this course will improve skills through further instruction and practice.</td>
</tr>
<tr>
<td>DN-T 31</td>
<td>Pilates Teaching-Mat and Reformer</td>
<td>3</td>
<td>Provides the opportunity for the advanced dancer to learn choreography and to perform repertory pieces at workshops and special events. Students who repeat this course will improve skills through further instruction and practice.</td>
</tr>
<tr>
<td>DN-T 32</td>
<td>Teaching Pilates Cadillac and Wunda Chair Repertoire</td>
<td>1.5</td>
<td>Provides the opportunity for the advanced dancer to learn choreography and to perform repertory pieces at workshops and special events. Students who repeat this course will improve skills through further instruction and practice.</td>
</tr>
</tbody>
</table>
**Course Descriptions**

**DN-T 33 — Teaching Pilates Ped-a-Pul, Barrels and Auxiliary Equipment Repertoire**

1.5 Units

Degree Applicable

18 hours lecture
36 hours lab

Prerequisite: DN-T 30 and DN-T 32

Learning to teach Pilates exercises on the following apparatus: Ped-a-Pul, Ladder Barrel, Step Barrel, Arc Barrel, Magic Circle, C-cushion and props. All levels are covered with a focus on the development of correct neuromuscular patterning.

**DN-T 34 — Pilates Teaching-Cadillac, Wunda Chair and Auxiliary Equipment**

3 Units

Degree Applicable

18 hours lecture
108 hours lab

Prerequisite: DN-T 33

Prepares students to teach Pilates in a variety of settings and situations. Teaching reinforces knowledge and understanding of the Pilates exercises and concepts. Includes lecture, observation, self-integration, assistant teaching and one-on-one teaching. Off-campus observations may be required.

**DN-T 38 — Dance Teaching Methods**

3 Units

Degree Applicable

36 hours lecture
54 hours lab

Corequisite: DNCE 2B or DNCE 12B or DNCE 14B

The application of pedagogical methods in Dance. Explores teaching strategies, imagery, motivational techniques, music for class instruction, and injury prevention. Focus is on the genres of Ballet, Jazz and Modern Dance. Course will involve on-and off-campus dance teaching observations.

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**DISABLED STUDENTS**

**DSPS 13 — Orientation to College for Students with Disabilities**

1 Unit

Not Degree Applicable

(May be taken for option of letter grade or Pass/No Pass)

18 hours lecture

Examine the college experience in relationship to disabilities. Develop an understanding of how disability related factors may influence the educational decision-making process.

**DSPS 15 — Career Exploration for Students with Disabilities**

1 Unit

Not Degree Applicable

(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 20 — Improving Spelling and Reading of Words**

3 Units

Not Degree Applicable

(May be taken for Pass/No Pass only)

54 hours lecture

Improve reading and spelling skills for multi-syllabic words. Includes sounding out letters, oral movements, and common “rules” for reading and spelling words. Designed for students with learning disabilities. Students who repeat this course will improve skills through further instruction and practice.

**DSPS 25 — Language Development for Deaf Students**

2 Units

ASL and English

Not Degree Applicable

(May be taken for Pass/No Pass only)

108 hours lab

Language Development for Deaf or hard of hearing students who use sign language to improve written English and ASL communication.

**DSPS 26 — Language Enhancement for Deaf Students**

2 Units

ASL and English

Not Degree Applicable

(May be taken for Pass/No Pass only)

108 hours lab

Advisory: DSPS 25

Language Enhancement for Deaf or hard of hearing students who use sign language to improve written English and ASL communication.

**DSPS 30 — Academic Success Strategies for Students with Disabilities**

1 Unit

Not Degree Applicable

(May be taken for Pass/No Pass only)

54 hours lab

Strategies for academic success intended for students with physical or learning-related disabilities. Addresses language, memory and reasoning with subject-specific techniques.

**DSPS 31 — Memory Strategies for Students with Disabilities**

3 Units

Not Degree Applicable

(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. Focuses on the memory process, improving specific memory components, identifying key concepts to remember, and the independent application of memory strategies to other academic courses.

**DSPS 32 — Technology for Students with Learning Disabilities**

3 Units

Not Degree Applicable

(May be taken for Pass/No Pass only)

54 hours lecture

Advisory: Eligibility for ENGL 67 or AMLA 42W and READ 80 or AMLA 32R. Concurrent enrollment in an academic class that requires reading and writing.

Students with Learning Disabilities can improve their reading comprehension and written expression as applied to assignments in academic classes through the use of technology. A variety of strategies using technology will be introduced to students that will aid them in understanding and learning reading assignments and in expressing their ideas in written assignments. They will select several strategies for more in-depth use and will apply them functionally in academic classes. Concurrent enrollment in an academic class that requires reading and writing is advised.

**DSPS 33 — Strategies for Success in Math for Students with Disabilities**

3 Units

Not Degree Applicable

(May be taken for Pass/No Pass only)

54 hours lecture

Advisory: Concurrent enrollment in MATH 50 to MATH 130

Strategies for students currently in math courses for academic success in relationship to disabilities. Emphasis on effects of and strategies for processing, language expression, memory, reasoning, and processing speed as they relate to math.
EDUC 10 — Introduction to Education 3 Units

54 hours lecture
Prerequisite: Eligibility for ENGL 68
Concepts and issues related to teaching diverse learners in contemporary public schools (K-12). Topics include historical and philosophical foundations of America education, teaching as a profession and career, contemporary education issues, California content standards, and teacher performance standards. In addition to class time, the course requires 45 hours of structured classroom observations. Proofs of a negative TB test and fingerprint clearance are required for classroom observations.

EDUC 16 — Aspects and Issues in Teaching 3 Units

54 hours lecture
Advisory: Eligibility for ENGL 68
Survey of the teaching profession, including teaching and learning styles, state content standards and testing, recent California and national legislation, social issues, school funding and teacher and student rights and responsibilities. Off-site assignments may be required.

ELEC 10 — Introduction to Mechatronics 2 Units

18 hours lecture 54 hours lab
An introduction to the field of mechatronics, a combination of conventional electronic technology with mechanical and computer technology. Special emphasis is on robotics. Hands-on activities include the building of a robot.

ELEC 11 — Technical Applications in Microcomputers 3 Units

Degree Applicable, CSU

36 hours lecture 54 hours lab
Personal computer (PC) applications used in electronics technology. Includes word processing, spreadsheets, database, computer presentation methods, and internet research specifically designed for electronics technology.

ELEC 12 — Computer Simulation and Troubleshooting 2 Units

Degree Applicable

18 hours lecture 54 hours lab
Advisory: ELEC 51 and ELEC 56 taken prior
Troubleshooting of electronic hardware, including use of computer-based tools for simulation and troubleshooting of analog and digital circuits. National Instruments Multisim software will be used for circuit analysis, value substitution, and fault diagnostics.

ELEC 50A — Electronic Circuits - Direct Current (DC) 4 Units

Degree Applicable, CSU

54 hours lecture 54 hours lab
Advisory: Eligibility for MATH 51
Direct Current (DC) electrical circuits and their applications. Covers DC sources, analysis, test equipment, measurements, and troubleshooting of resistive devices and other basic components. Includes Ohm’s Law, Kirchhoff’s law, and network theorems. (Students seeking a survey course in electronics should take ELEC 10, Introduction to Mechatronics, rather than ELEC 50A or 50B.)

ELEC 50B — Electronic Circuits (AC) 4 Units

Degree Applicable, CSU

54 hours lecture 54 hours lab
Advisory: ELEC 50A taken prior
Alternating Current (AC) electrical circuits and their applications. Covers AC sources, analysis (using complex numbers), test equipment, measurements, and troubleshooting of basic circuits with capacitors, inductors, and resistors. Includes impedance, resonance, filters, and decibels.

ELEC 51 — Semiconductor Devices and Circuits 4 Units

Degree Applicable, CSU

54 hours lecture 54 hours lab
Advisory: ELEC 50B
Solid-state devices and circuits, including bipolar- and field-effect transistors, rectifier diodes, operational amplifiers, and thyristors. Analog circuits studied include discrete and integrated circuit amplifiers, voltage regulators, oscillators and timers. Emphasizes configurations, classes, load lines, characteristic curves, gain, troubleshooting, measurements, and frequency response.

ELEC 52 — Communications Systems 4 Units

Degree Applicable

36 hours lecture 54 hours lab
Advisory: ELEC 50B taken prior
Analog and digital communications systems. Emphasizes analog and digital modulation principles, multiplexing, protocols, and telecommunications circuits and systems.

ELEC 53 — Communications Systems 4 Units

Degree Applicable

54 hours lecture 54 hours lab
Advisory: ELEC 51 taken prior concurrently
Analog and digital communications systems. Emphasizes analog and digital modulation principles, multiplexing, protocols, and telecommunications circuits and systems.

ELEC 54A — Industrial Electronics 4 Units

Degree Applicable, CSU

54 hours lecture 54 hours lab
Advisory: ELEC 51 taken prior
Industrial electronic components and basic control circuits. Includes time delay controls, thyristor controls, relays, opto devices, DC and AC motor control, transducers, silicon controlled rectifier (SCR), and unijunction transistor (UJT) devices.

ELEC 54B — Industrial Electronic Systems 3 Units

Degree Applicable, CSU

36 hours lecture 54 hours lab
Advisory: ELEC 50B taken prior
Systems application of industrial electronics including industrial production and processes, automation, and programmable motor controllers. Emphasis is on programmable logic controllers (PLCs).

ELEC 55 — Microwave Communications 4 Units

Degree Applicable

54 hours lecture 54 hours lab
Advisory: ELEC 50B taken prior
Microwave components and circuits. Stresses transmission lines, Smith Charts, impedance matching, antenna characteristics, wave propagation, frequency analysis and measurement techniques.

ELEC 56 — Digital Electronics 4 Units

Degree Applicable, CSU

54 hours lecture 54 hours lab
Advisory: ELEC 50B
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.
Course Descriptions

ELEC 61 — Electronic Assembly and Fabrication  3 Units  Degree Applicable, CSU
36 hours lecture
54 hours lab
Advisory: ELEC 50A and ELEC 50B
Manufacturing and fabrication processes associated with the electronics industry. Printed circuit board (PCB) design from conception to completion. Emphasizes electrical schematics, bill of material (BOM), component selection, layout design, manufacturability, assembly, soldering, de-soldering, and surface-mount technology.

ELEC 62 — Advanced Surface Mount Assembly and Rework  2 Units  Degree Applicable
18 hours lecture
54 hours lab
Advisory: ELEC 50B
Advanced course in assembly and repair (soldering) on surface mount assemblies (SMT). Prepares for the IPC surface mount assembly and rework certifications.

ELEC 64 — Electronic Troubleshooting - II  4 Units  Degree Applicable
54 hours lab
Advisory: EST 62
Troubleshooting advanced electronic video circuits and systems to component level. Includes HDTV (plasma, LCD, LED).

ELEC 65 — Electronic Troubleshooting - I  4 Units  Degree Applicable
54 hours lab
Advisory: EST 62
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).

ELEC 66 — Advanced Surface Mount Assembly  2 Units  Degree Applicable
54 hours lab
Advisory: ELEC 50B
Advanced course in assembly and repair (soldering) on surface mount assemblies (SMT). Prepares for the IPC surface mount assembly and rework certifications.

ELEC 67 — Microcontroller Systems  4 Units  Degree Applicable, CSU
54 hours lecture
54 hours lab
Advisory: ELEC 50B taken prior
Microcontroller systems and programming methods; programmable logic devices (PLDs); serial communications; conversion of signals from analog to digital formats and the converse. Industry applications, interfacing, and troubleshooting.

ELEC 68 — Electronic Troubleshooting - I  4 Units  Degree Applicable
54 hours lab
Advisory: EST 62
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).

ELEC 69 — Electronic Troubleshooting - II  4 Units  Degree Applicable
54 hours lab
Advisory: EST 62
Troubleshooting advanced electronic video circuits and systems to component level. Includes HDTV (plasma, LCD, LED).

ELEC 70 — Electronic Troubleshooting - III  4 Units  Degree Applicable
54 hours lab
Advisory: EST 62
Troubleshooting advanced electronic video circuits and systems to component level. Includes HDTV (plasma, LCD, LED).

EST 62 — Electronic Troubleshooting - I  4 Units  Degree Applicable
54 hours lecture
54 hours lab
Advisory: EST 54
Home theater, home integration, home management Power Line Carriers (PLCs), security hardware and programming, and the installation and servicing of such systems. Prepares students for the California State Contractors C-7 low voltage systems license.

EST 54 — Cabling and Wiring Standards  4 Units  Degree Applicable
54 hours lecture
54 hours lab
Advisory: EST 54
Prepares qualified electronics and aviation technicians for the Federal Communications Commission (FCC) commercial General Radiotelephone Operator License (GROL).

EST 61 — Work Experience in Electronics  1 to 4 Units  Degree Applicable
(May be taken for Pass/No Pass only)
75 to 300 hours lab
Prerequisite: Compliance with Work Experience regulations as designated in the College Catalog
Advisory: ELEC 61
Provides actual on-the-job experience in electronics at an approved work site which is related to classroom instruction. A minimum of five hours per week of supervised work (60 non-paid clock hours or 75 paid clock hours per semester) is required for each one unit of credit.

EST 50 — Electrical Fundamentals for Cable Installations  4 Units  Degree Applicable
54 hours lecture
54 hours lab
Electrical fundamentals for cable and wire installations, and other low voltage systems. Includes DC/AC, solid-state devices, digital and microprocessor devices and their application to cable installations. Prepares students for the California State Contractors C-7 low voltage systems license.

EST 52 — Fabrication Techniques for Cable Installations  4 Units  Degree Applicable
54 hours lecture
54 hours lab
Fabrication techniques used in the installation of home theater, computer networks, home automation, and other low voltage system applications. Emphasis on hand and power tools, construction methods and materials as they apply to cable and wire installations. Prepares students for the California State Contractors C-7 low voltage systems license.

EST 56 — FCC General Radiotelephone Operator  2 Units  Degree Applicable
18 hours lecture
54 hours lab
Prepares qualified electronics and aviation technicians for the Federal Communications Commission (FCC) commercial General Radiotelephone Operator License (GROL).

EMS 1 — Paramedic Fundamentals and Selection  4 Units  Degree Applicable
72 hours lecture
Prerequisite: Completed Paramedic Program application, current California EMT I (Basic) certificate, and 1200 hours employment as an EMT I, Eligibility for ENGL 68, Eligibility for READ 90, and Eligibility for MATH 51
Assessment and review of required Emergency Medical Technician (EMT) competencies as part of the selection process for the Emergency Medical Technician Paramedic (EMT-P) program. Includes current practices, medical terminology, mathematical skills for drug calculations, and applied physiology and anatomy of human body systems.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Units</th>
<th>Degree Applicable</th>
<th>Description</th>
</tr>
</thead>
</table>
| EMS 2       | Preparation for Paramedic Program | 1 Unit | Not Degree Applicable | (May be taken for Pass/No Pass only) 54 hours lab  
Prerequisite: Acceptance into the paramedic program AND EMS 1  
Emergency Medical Technician (EMT) - Basic Skills development and practice for patient assessment and treatment decision-making in preparation for the paramedic program. Focuses on life support, trauma response, and immobilization techniques for healthcare providers. Includes the American Heart Association Healthcare Provider (AHA HCP) Basic Life Support (BLS) skills, Basic Trauma Life Support (BTLS) and the Los Angeles County Emergency Medical Services (EMS) standards and resuscitation policies. Ride-alongs with 911 call response teams are highly recommended. |
| EMS 10      | Anatomy and Physiology for Paramedics | 3.5 Units | Degree Applicable | 61 hours lecture  
Prerequisite: Admission to Paramedic Program and EMS 1 and EMS 2  
Corequisite: EMS 10, EMS 20, EMS 30, EMS 40, EMS 50, and EMS 60  
Gross anatomy and physiology of the human body, with applications to paramedic practices. |
| EMS 20      | Emergency Cardiac Care for Paramedics | 2 Units | Degree Applicable | 18 hours lecture  
48 hours lab  
Prerequisite: Admission to the Paramedic Program  
Corequisite: EMS 10, EMS 20, EMS 30, EMS 40, EMS 50, and EMS 60  
(Courses may have been taken previously)  
Certifies students in Pediatric Advanced Life Support (PALS), and Advanced Cardiac Life Support (ACLS) according to the standards of the American Heart Association (AHA). Enhances advanced assessment and treatment skills according to national and Los Angeles County Treatment Guidelines. |
| EMS 30      | Pharmacology for Paramedics | 3 Units | Degree Applicable | 44 hours lecture  
44 hours lab  
Prerequisite: Admission to the Paramedic Program  
Corequisite: EMS 10, EMS 20, EMS 40, EMS 50, EMS 60  
Paramedic drugs with emphasis on dosages supplied and ordered, routes of administration, expected therapeutic outcomes and possible adverse reactions. |
| EMS 40      | Cardiology for Paramedics | 3 Units | Degree Applicable | 54 hours lecture  
Prerequisite: Admission to the Paramedic Program  
Corequisite: EMS 10, EMS 20, EMS 30, EMS 50, and EMS 60  
Familiarizes the paramedic with the normal, abnormal, and diseased heart, assessments, assessment tools, interpretation of dysrhythmias, and paramedic interventions. |
| EMS 50      | Paramedic Skills Competency | 5.5 Units | Degree Applicable | 67 hours lecture  
80 hours lab  
Prerequisite: Admission to the Paramedic Program  
Corequisite: EMS 10, EMS 20, EMS 30, EMS 40, EMS 60  
Paramedic skills required for field operation as a paramedic and for licensing in competency-based exams. |
| EMS 60      | EMS Theory for Paramedics | 9 Units | Degree Applicable | 157 hours lecture  
Prerequisite: Admission to the Paramedic Program  
Corequisite: EMS 10, EMS 20, EMS 30, EMS 40, and EMS 50  
Paramedic theories, principles, and practices including assessment skills, care of the sick and injured at a paramedic level, with applications to anatomy and physiology, pathologic processes, and mechanisms of injury. |
| EMS 70      | Paramedic Clinical Internship | 4 Units | Degree Applicable | (May be taken for Pass/No Pass only) 192 hours lab  
Prerequisite: EMS 1  
Corequisite: EMS 60 (May have been taken previously)  
Clinical experience and application of paramedic theory and practice with an emphasis on patient assessment and utilization of paramedic skills in a hospital setting. |
| EMS 80      | Paramedic Field Externship | 9.5 Units | Degree Applicable | (May be taken for Pass/No Pass only) 479 hours lab  
Prerequisite: EMS 1 and successful completion of Los Angeles County accreditation exam  
Corequisite: EMS 70 (May have been taken previously)  
Application of concepts of paramedic theory and practices, with emphasis on patient assessment and utilization of paramedic skills in a field setting on an operational paramedic unit. |
Course Descriptions

- **EMT 95 — EMT for Fire Technology**
  8 Units
  Degree Applicable
  100 hours lecture
  100 hours lab
  Prerequisite: Must be at least 18 years old
  Advisory: FIRE 1 AND FIRE 13
  Designed for pre-Fire Academy students, this course is approved by the L.A. County and State EMS Agencies and prepares students to take the National Registry of EMTs certifying exam. Develops knowledge and skills needed for recognition of illnesses and injuries and emphasizes proper pre-hospital emergency care per local and national protocols.

- **ENGR 1 — Introduction to Engineering**
  1 Unit
  Degree Applicable, CSU, UC
  (May be taken for option of letter grade or Pass/No Pass)
  18 hours lecture
  Engineering and surveying professions including academic requirements, articulation agreements with four-year institutions, transfer, engineering study as a preparation for other careers, and academic and employment strategies. Also includes professional engineering licensure and engineering ethics. Field trips are required.

- **ENGR 7 — Programming Applications for Engineers**
  4 Units
  Degree Applicable, CSU
  54 hours lecture
  54 hours lab
  Prerequisite: Math 180
  Engineering computation using MATLAB and Simulink. Topics include matrix computation, statistical analysis, graphics, and numerical methods. Common examples and applications of physics and engineering are used throughout the course.

- **ENGR 8 — Properties of Materials**
  4 Units
  Degree Applicable, CSU, UC
  (May be taken for option of letter grade or Pass/No Pass)
  72 hours lecture
  Prerequisite: CHEM 40 or CHEM 50 and PHYS 4A or PHYS 2AG
  Mechanical, electrical, magnetic, optical and thermal properties of engineering materials and their relation to the materials’ internal structure. Atomic structure and bonding, crystalline structures, phase and phase diagrams, metals; polymers, ceramics, composites, mechanical deformation and fracture, structural control and influence of properties, materials naming and designating systems, corrosion process, lasers, semiconductors and electronic packaging materials.

- **ENGR 18 — Introduction to Engineering Graphics**
  3 Units
  Degree Applicable, CSU
  (May be taken for option of letter grade or Pass/No Pass)
  36 hours lecture
  54 hours lab
  Fundamental engineering graphics and problem solving techniques. Skills in freehand and instrument drawing are developed and applied to the solution of problems. Orthographic, isometric and oblique drawings.

- **ENGR 24 — Engineering Graphics**
  4 Units
  Degree Applicable, CSU, UC
  36 hours lecture
  108 hours lab
  Prerequisite: MATH 150 AND (ENGR 18 or eligibility for ENGR 24)
  Advisory: CISB 15
  2D and 3D Computer-aided design (CAD) for engineering students. The principles of engineering drawing and sketching for mechanical design, the use of computer graphics and solid modeling in design representation of 3D objects, assembly and simulation as well as ASME standards on geometric dimensioning and tolerances.

- **ENGR 40 — Statics**
  3 Units
  Degree Applicable, CSU, UC
  54 hours lecture
  Prerequisite: PHYS 4A
  Vector approach to static equilibrium of rigid bodies, forces, couples in two- and three-dimensional space. Application of equilibrium principles to trusses, frames and machines. Calculation of center of mass and centroid. Friction, moment of inertia, distributed and concentrated loads. Forces in cables and beams. Fluid statics. Introduction to virtual work.

- **ENGR 41 — Dynamics**
  3 Units
  Degree Applicable, CSU, UC
  54 hours lecture
  Prerequisite: ENGR 40
  Vector approach to classical mechanics including absolute and relative motion of particles and rigid bodies in translational and rotational motion. Instantaneous center of rotation. Application of Newton’s Second Law, work-energy and impulse-momentum methods, and introduction to mechanical vibrations.

- **ENGR 42 — Mechanics of Materials**
  4 Units
  Degree Applicable, CSU, UC
  72 hours lecture
  Prerequisite: ENGR 40
  Mechanics of deformable bodies subjected to axial, torsional, shearing, and bending loads. Includes combined stresses, statically indeterminate structures, deflection and stress analysis of beams, stability of columns, strain energy methods, and design of pressure vessels and structures.

- **ENGR 44 — Electrical Engineering**
  4 Units
  Degree Applicable, CSU, UC
  54 hours lecture
  54 hours lab
  Prerequisite: PHYS 4B
  Electrical circuit analysis including applications of Kirchoff’s Laws and Thevenin’s Theorems to DC and AC circuits. Fundamental principles including steady state and transient circuit response; complex impedance and admittance, Fourier and Laplace transforms and three-phase circuits. Application of fundamental circuit principles to operational amplifier and transistor circuits.

- **ENGR 50A — Robotics Team Project Development**
  2 Units
  Degree Applicable, CSU
  108 hours lab
  Prerequisite: Instructor approval required for robotics competition team members
  This course is for members of the Robotics Team. Introduces the knowledge, skills and activities needed to organize, promote and manage the design phase of a robotics competition team. Includes a survey of problem analysis, programming, mechanical design, and project management. Intended for students with an interest in robotics who need to gain experience as members of an engineering design team. Instructor approval required. Off-campus competition required.

- **ENGR 99 — Special Projects in Engineering**
  1 to 2 Units
  Not Degree Applicable
  54 to 108 hours lab
  Corequisite: PHYS 1 or PHYS 2AG or PHYS 4A (May have been taken previously)
  In order to offer selected students recognition for their academic interests and ability and the opportunity to explore their disciplines to greater depth, the various departments from time to time offer special projects courses. The content of each course and the methods of study vary from semester to semester and depend on the particular project under consideration. Student must have instructor’s authorization before enrolling in this class. Students who repeat this course will meet with the instructor and make individual contracts of a more advanced nature to ensure that proficiencies are enhanced.

ENGINEERING DESIGN TECHNOLOGY

- **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 engineering and related fields (including basic word processing, spreadsheet, CAD and presentation applications).
ENGLISH: COMPOSITION

- ENGL 1A — Freshman Composition 4 Units
  (C-ID ENGL 100) Degree Applicable, CSU, UC
  72 hours lecture
  Prerequisite: ENGL 68 or satisfactory score on the English Placement Test
  Develops effective expository writing skills and investigates the principles and methods of composition as applied to the writing of essays and the research paper. Emphasizes critical reading of academic material.

- ENGL 1AH — Freshman Composition - Honors 4 Units
  (C-ID ENGL 100) Degree Applicable, CSU, UC
  72 hours lecture
  Prerequisite: Acceptance into the Honors Program
  Develops effective expository writing skills and investigates the principles and methods of composition as applied to the writing of essays and the research paper. Emphasizes critical reading of academic material. An honors course designed to provide an enriched experience. Students may not receive credit for both ENGL 1A and ENGL 1AH.

- ENGL 1B — English - Introduction to Literary Types 3 Units
  (C-ID ENGL 120) Degree Applicable, CSU, UC
  54 hours lecture
  Prerequisite: ENGL 1A or ENGL 1AH
  Critical, oral, and written evaluation, analysis, and interpretation of short and long fiction, poetry, and drama. Develops a foundation for personal, cultural, and intellectual growth.

- ENGL 1B — English - Introduction to Literary Types - Honors 3 Units
  (C-ID ENGL 120) Degree Applicable, CSU, UC
  54 hours lecture
  Prerequisite: ENGL 1A or ENGL 1AH
  Critical, oral, and written evaluation, analysis, and interpretation of short and long fiction, poetry, and drama. Develops a foundation for personal, cultural, and intellectual growth. An honors course designed to provide an enriched experience. May not receive credit for both ENGL 1B and ENGL 1BH.

- ENGL 1C — Critical Thinking and Writing 4 Units
  (C-ID ENGL 105) Degree Applicable, CSU, UC
  72 hours lecture
  Prerequisite: ENGL 1A or ENGL 1AH
  Develops critical thinking, reading, and writing skills. Focuses on logical analysis and argumentative writing.

- ENGL 1C — Critical Thinking and Writing - Honors 4 Units
  (C-ID ENGL 105) Degree Applicable, CSU, UC
  72 hours lecture
  Prerequisite: ENGL 1A or ENGL 1AH and acceptance into the Honors Program
  Develops critical thinking, reading, and writing skills. Focuses on logical analysis and argumentative writing. An honors course designed to provide an enriched experience. May not receive credit for both ENGL 1C and ENGL 1CH.

- ENGL 1D — Creative Writing - Poetry 3 Units
  Degree Applicable, CSU, UC
  54 hours lecture
  Prerequisite: ENGL 1A or ENGL 1AH
  Elements, processes, and techniques of fiction writing. Includes genre, setting, point of view, character development, plot development, description, and dialogue with an emphasis on student development as a writer of fiction through practice and discussion.

- ENGL 1D — Creative Writing - Poetry - Honors 3 Units
  Degree Applicable, CSU, UC
  54 hours lecture
  Prerequisite: ENGL 1A or ENGL 1AH
  Elements, processes, and techniques of fiction writing. Includes genre, setting, point of view, character development, plot development, description, and dialogue with an emphasis on student development as a writer of fiction through practice and discussion.

- ENGL 1E — Creative Writing - Nonfiction 3 Units
  Degree Applicable, CSU, UC
  54 hours lecture
  Prerequisite: ENGL 1A
  Analysis and writing of creative nonfiction including stylistic and syntactic forms and composition strategies used when writing creative nonfiction.
### Course Descriptions

<table>
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<tr>
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</thead>
<tbody>
<tr>
<td>ENGL 8G</td>
<td>Creative Writing-Memoir Collection, development of memoir collection through reading, practice, and discussion.</td>
<td>3</td>
<td>Degree Applicable</td>
<td>(May be taken for option of letter grade or Pass/No Pass) Prerequisite: ENGL 8E</td>
</tr>
<tr>
<td>ENGL 8I</td>
<td>Creative Writing - Nonfiction Collections, elements, processes, and techniques for creating and writing creative nonfiction collections.</td>
<td>3</td>
<td>Degree Applicable</td>
<td>(May be taken for option of letter grade or Pass/No Pass) Prerequisite: ENGL 8F</td>
</tr>
<tr>
<td>ENGL 8A</td>
<td>Writing the Personal Journal, personal exploration, development of creativity, and expanded awareness of others' lives through journal writing.</td>
<td>3</td>
<td>Degree Applicable</td>
<td>(May be taken for option of letter grade or Pass/No Pass) Prerequisite: Eligibility for ENGL 1A</td>
</tr>
<tr>
<td>ENGL 8B</td>
<td>Expanding the Personal Journal, emphasizes advanced techniques for journal writing. Students will develop techniques that allow them to turn private work into public pieces.</td>
<td>3</td>
<td>Degree Applicable</td>
<td>(May be taken for option of letter grade or Pass/No Pass) Prerequisite: ENGL 9A</td>
</tr>
<tr>
<td>ENGL 64</td>
<td>Writing Effective Sentences, improve sentence writing skills through the analysis and application of sentence elements.</td>
<td>1</td>
<td>Not Degree Applicable</td>
<td>(May be taken for option of letter grade or Pass/No Pass) Prerequisite: Eligibility for ENGL 67</td>
</tr>
<tr>
<td>ENGL 65</td>
<td>Grammar Review, review fundamentals of English, students need a practical course focusing on usage and grammar: case, agreement, verbs, adjectives, fragments, shifts in construction, dangling modifiers, diction, parallelism, comma splice, and punctuation.</td>
<td>1</td>
<td>Not Degree Applicable</td>
<td>(May be taken for option of letter grade or Pass/No Pass)</td>
</tr>
<tr>
<td>ENGL 66</td>
<td>Paragraph Writing, analysis and writing of paragraphs.</td>
<td>1</td>
<td>Not Degree Applicable</td>
<td>(May be taken for option of letter grade or Pass/No Pass)</td>
</tr>
<tr>
<td>ENGL 67</td>
<td>Writing Fundamentals, emphasis on sentence skills and critical thinking through combining reading and writing.</td>
<td>4</td>
<td>Degree Applicable</td>
<td>(May be taken for option of letter grade or Pass/No Pass) Prerequisite: Satisfactory score on the English Placement Test or completion of AMLA 42W or completion of LERN 81</td>
</tr>
<tr>
<td>ENGL 68</td>
<td>Preparation for College Writing, emphasis on sentence skills, outlining, summary, paragraph and essay skills, and critical thinking through combining reading and writing.</td>
<td>4</td>
<td>Degree Applicable</td>
<td>(May be taken for option of letter grade or Pass/No Pass)</td>
</tr>
<tr>
<td>ENGL 1A</td>
<td>Early American Literature, analyzes the representative contributions of diverse groups to American literature and culture.</td>
<td>3</td>
<td>Degree Applicable, CSU, UC</td>
<td>(C-ID ENGL 130) Prerequisite: ENGL 1A 54 hours lecture</td>
</tr>
<tr>
<td>ENGL 1B</td>
<td>Modern American Literature, emphasizes writers who created an American literary identity and shaped America's cultural mythology.</td>
<td>3</td>
<td>Degree Applicable, CSU, UC</td>
<td>(C-ID ENGL 135) Prerequisite: ENGL 1A 54 hours lecture</td>
</tr>
<tr>
<td>ENGL 1C</td>
<td>Multicultural American Literature, emphasizes characteristics of late 19th, 20th, and 21st century concerns as they relate to American literary form and content.</td>
<td>3</td>
<td>Degree Applicable, CSU, UC</td>
<td>(C-ID ENGL 136) Prerequisite: Eligibility for ENGL 1A 54 hours lecture</td>
</tr>
<tr>
<td>ENGL 75</td>
<td>Vocabulary Building, expands students' reading, writing and speaking vocabularies through study of the rules of word formation, emphasizing prefixes, roots, suffixes and the effective use of content clues as well as dictionaries and other reference works.</td>
<td>3</td>
<td>Not Degree Applicable</td>
<td>(May be taken for option of letter grade or Pass/No Pass)</td>
</tr>
<tr>
<td>ENGL 81</td>
<td>Language Acquisition, language structure, linguistics, language development.</td>
<td>3</td>
<td>Degree Applicable, CSU</td>
<td>(May be taken for option of letter grade or Pass/No Pass) Prerequisite: ENGL 1A</td>
</tr>
<tr>
<td>ENGL 99</td>
<td>Special Projects in English, offers selected students recognition for their academic interest and ability, and the opportunity to explore the discipline in greater depth.</td>
<td>2</td>
<td>Degree Applicable, CSU</td>
<td>(May be taken for option of letter grade or Pass/No Pass) Prerequisite: ENGL 1A 36 hours lecture</td>
</tr>
</tbody>
</table>

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**ENGLISH: LITERATURE**

### Course Descriptions

<table>
<thead>
<tr>
<th>Course Code</th>
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<th>Notes</th>
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<tbody>
<tr>
<td>LIT 1</td>
<td>Early American Literature, analyzes the representative contributions of diverse groups to American literature and culture.</td>
<td>3</td>
<td>Degree Applicable, CSU, UC</td>
<td>(C-ID ENGL 130) Prerequisite: ENGL 1A 54 hours lecture</td>
</tr>
<tr>
<td>LIT 2</td>
<td>Modern American Literature, emphasizes writers who created an American literary identity and shaped America's cultural mythology.</td>
<td>3</td>
<td>Degree Applicable, CSU, UC</td>
<td>(C-ID ENGL 135) Prerequisite: ENGL 1A 54 hours lecture</td>
</tr>
<tr>
<td>LIT 3</td>
<td>Multicultural American Literature, emphasizes characteristics of late 19th, 20th, and 21st century concerns as they relate to American literary form and content.</td>
<td>3</td>
<td>Degree Applicable, CSU, UC</td>
<td>(C-ID ENGL 136) Prerequisite: Eligibility for ENGL 1A 54 hours lecture</td>
</tr>
<tr>
<td>LIT 6A</td>
<td>Survey of English Literature, a chronological study of major works from Beowulf and the Anglo-Saxon period to the mid-18th century.</td>
<td>3</td>
<td>Degree Applicable, CSU, UC</td>
<td>(C-ID ENGL 160) Prerequisite: ENGL 1A 54 hours lecture</td>
</tr>
<tr>
<td>Course Code</td>
<td>Title</td>
<td>Units</td>
<td>Description</td>
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<tr>
<td>LIT 6B</td>
<td>Survey of English Literature</td>
<td>3</td>
<td>Major works from the Romantic Era through the Victorian and Modern periods to contemporary texts.</td>
<td></td>
</tr>
<tr>
<td>LIT 10</td>
<td>Survey of Shakespeare</td>
<td>3</td>
<td>Shakespeare’s histories, tragedies, comedies, and selected sonnets with their historical and literary contexts, emphasizing their relevance to contemporary culture and values.</td>
<td></td>
</tr>
<tr>
<td>LIT 11A</td>
<td>World Literature to 1650</td>
<td>3</td>
<td>Survey of selected works derived from antiquity to 1650 from Europe, the Near and Mid East, Egypt, Asia, Greece, and Rome.</td>
<td></td>
</tr>
<tr>
<td>LIT 11B</td>
<td>World Literature from 1650</td>
<td>3</td>
<td>Conducts a comparative survey of selected works of literature, in English translation, originating since 1650 to the 21st century.</td>
<td></td>
</tr>
<tr>
<td>LIT 14</td>
<td>Introduction to Modern Poetry</td>
<td>3</td>
<td>Examines the significant poetry of England and America in the 20th and 21st centuries, with the major emphasis on contemporary poems.</td>
<td></td>
</tr>
<tr>
<td>LIT 15</td>
<td>Introduction to Cinema</td>
<td>3</td>
<td>Explores the broad range of human experience inherent in the study of film as art. Using a number of films drawn from various genres, examines film from historical, social, technological and aesthetic perspectives.</td>
<td></td>
</tr>
<tr>
<td>LIT 20</td>
<td>African American Literature</td>
<td>3</td>
<td>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.</td>
<td></td>
</tr>
<tr>
<td>LIT 25</td>
<td>Contemporary Mexican American Literature</td>
<td>3</td>
<td>Contemporary Mexican-American literature, drama, and film. Includes discussion of the roles played by gender, religion, language, education, family, ethnic identity, and class. Also addresses application of literary tools such as symbolism, language, and theme.</td>
<td></td>
</tr>
<tr>
<td>LIT 36</td>
<td>Introduction to Mythology</td>
<td>3</td>
<td>Major myths, including creation, fertility, and hero myths. Theories and approaches to these archetypal stories and the ways that they reflect and shape culture. Emphasis is on Classical myths, but myths from around the world may be included.</td>
<td></td>
</tr>
<tr>
<td>LIT 40</td>
<td>Children's Literature</td>
<td>3</td>
<td>Children's fiction and non-fiction books from around the world. Emphasis is given to analysis and interpretation of thematic and literary elements, suitability for age group, quality of writing and illustration, award-winning books, and issues related to cultural patterns, bias and persuasiveness.</td>
<td></td>
</tr>
<tr>
<td>LIT 46</td>
<td>The Bible As Literature: Old Testament</td>
<td>3</td>
<td>Considers the Bible as a collection of literary texts and applies the principles of literary analysis to the Old Testament in their historical and cultural contexts.</td>
<td></td>
</tr>
<tr>
<td>LIT 47</td>
<td>The Bible as Literature: New Testament</td>
<td>3</td>
<td>Considers the Bible as a collection of literary texts and applies the principles of literary analysis to selected books of the New Testament in their historical and cultural contexts.</td>
<td></td>
</tr>
<tr>
<td>FCS 41</td>
<td>Life Management</td>
<td>3</td>
<td>Life skills for effective self-management now and in the future. Examine theories of life management including Maslow’s Hierarchy of Needs and how it can be applied to daily use of one’s resources including energy, abilities, priorities, and money. Major topics include steps in value clarification, goal setting, resource allocation, decision-making, priority management, money management, workplace management, communication skills and healthy habits. In addition, the course explores the effect of cultural forces and future trends.</td>
<td></td>
</tr>
<tr>
<td>FCS 51</td>
<td>Consumer Skills, Issues, and Strategies</td>
<td>3</td>
<td>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.</td>
<td></td>
</tr>
<tr>
<td>FCS 80</td>
<td>Personal Financial Planning</td>
<td>3</td>
<td>Personal and family financial planning for those who wish to understand their own finances across the lifespan and assist others in money management. Topics include financial goal setting, budgeting, consumer credit, debt management, banking functions, income taxes, home ownership, insurance, investing, and retirement planning. Students may not earn credit for both BUSA 71 and FCS 80.</td>
<td></td>
</tr>
<tr>
<td>FCS 91</td>
<td>Work Experience in Family and Consumer Sciences</td>
<td>1-3</td>
<td>(May be taken for Pass/No Pass only)</td>
<td></td>
</tr>
</tbody>
</table>
FASHION MERCHANDISING AND DESIGN

**FASH 8 — Introduction to Fashion**  3 Units  
Degree Applicable, CSU  
54 hours lecture  
Fashion industry from concept to consumer, industry background, and technology. Includes design, manufacturing, distribution, sales, and promotion with emphasis on career opportunities and qualifications.

**FASH 9 — History of Costume and Fashion**  3 Units  
Degree Applicable, CSU  
54 hours lecture  
Survey of Western costume and fashion from antiquity to contemporary times. Emphasis is placed on style development as it relates to social, economic and political forces, and the relationship of historic styles to current fashion.

**FASH 10 — Clothing Construction I**  3 Units  
Degree Applicable, CSU  
36 hours lecture  
54 hours lab  
Essentials of industry standard apparel construction techniques using a variety of machines and equipment. Students will be given instruction in single needle machine operation, industrial overlock operation, and garment assembly.

**FASH 12 — Clothing Construction II**  3 Units  
Degree Applicable, CSU  
36 hours lecture  
54 hours lab  
Prerequisite: FASH 10  
Advanced industry construction techniques using overlock and single needle machines.

**FASH 14 — Dress, Culture, and Identity**  3 Units  
Degree Applicable, CSU  
54 hours lecture  
The interrelatedness of socio-psychological, economic, cultural, and political/religious influences on dress, adornment, and fashion in historical perspective. Includes cross-cultural analysis of Western and non-Western dress.

**FASH 15 — Aesthetic Design in Fashion**  3 Units  
Degree Applicable, CSU  
54 hours lecture  
Prerequisite: FASH 25  
Design principles and influences in apparel selection and fashion design. Projects applying design elements and principles using CAD software.

**FASH 17 — Textiles**  3 Units  
Degree Applicable, CSU, UC  
54 hours lecture  
Manufacturing of textiles and fabrics and the factors that determine the suitability for end use. Topics include natural and synthetic fibers, yarns, fabric construction, dyes, finishes, legislation, and care. Emphasis is on selection criteria for textile product design and recent developments in the textile field.

**FASH 21 — Patternmaking I**  3 Units  
Degree Applicable, CSU  
36 hours lecture  
54 hours lab  
Prerequisite: FASH 10  
Theory and application of basic flat patternmaking techniques to create garment designs using industry standards. By means of dart and seam manipulation, patterns will be created, constructed and fitted.

**FASH 22 — Fashion Design By Draping**  3 Units  
Degree Applicable  
36 hours lecture  
54 hours lab  
Prerequisite: FASH 10  
Advisory: FASH 21  
Three dimensional dress design through draping fabrics directly to a dress form to create original designs and patterns to interpret fashion illustrations and technical flats.

**FASH 23 — Patternmaking II**  3 Units  
Degree Applicable  
36 hours lecture  
54 hours lab  
Prerequisite: FASH 21 and FASH 25  
Intermediate pattern drafting and flat patternmaking, with an introduction to the grading of patterns and technical packages. Development of patternmaking skills to include drafting flat patterns from measurements, creating advanced sleeves and collars. Students apply patternmaking theories to create ready-to-wear sportswear designs for misses and women's wear.

**FASH 24 — Fashion Patternmaking by Computer**  3 Units  
Degree Applicable  
36 hours lecture  
54 hours lab  
Prerequisite: FASH 21  
Industrial fashion patternmaking and grading using Gerber Computer Aided Design (CAD) technology. Exploration of drawing techniques, pattern development, flat pattern manipulation and the sizing and grading of patterns.

**FASH 25 — Fashion Computer-Assisted Drawing**  3 Units  
Degree Applicable, CSU  
36 hours lecture  
54 hours lab  

**FASH 26 — Visual Merchandising Display**  3 Units  
Degree Applicable, CSU  
36 hours lecture  
54 hours lab  
Prerequisite: FASH 25 or ARTC 140  
Design principles, color theory, space and lighting in relation to visual merchandising display areas and interior design of stores using various applications of computer graphics programs.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>FASH 81</td>
<td>Work Experience in Fashion Merchandising and Retail</td>
<td>1-3</td>
<td>Degree Applicable (May be taken for Pass/No Pass only) 75 to 225 hours lab Prerequisite: FASH 8 Provides fashion merchandising students with actual on-the-job experience in an approved work site which is related to classroom-based learning. A minimum of 75 paid clock hours or 60 non-paid clock hours per semester in apparel merchandising, buying and/or retail business required for each one unit of credit. Students are responsible for securing their own internships and must be ready for the first week of class. Students who repeat this course will improve skills through further instruction and practice.</td>
</tr>
<tr>
<td>FIRE 1</td>
<td>Fire Protection Organization</td>
<td>3</td>
<td>Degree Applicable 54 hours lecture Careers in fire protection and related fields, history of fire protection, fire loss analysis, and public, quasi-public, and private fire protection services. Also includes specific fire protection functions and fire behavior, suppression, and extinguishment. Advisory: FIRE 1</td>
</tr>
<tr>
<td>FIRE 2</td>
<td>Fire Prevention Technology</td>
<td>3</td>
<td>Degree Applicable 54 hours lecture History of fire prevention, including codes, ID and correction of hazards, investigation, and public safety education. Advisory: FIRE 1</td>
</tr>
<tr>
<td>FIRE 3</td>
<td>Fire Protection Equipment and Systems</td>
<td>3</td>
<td>Degree Applicable 54 hours lecture Advisory: FIRE 1 Portable fire extinguishing equipment, sprinkler and standpipe systems, protection systems for special hazards, fire alarm and detection systems and maintenance, design and operation of sprinkler systems, water supply, pump, tanks and connections.</td>
</tr>
<tr>
<td>FIRE 4</td>
<td>Building Construction for Fire Protection</td>
<td>3</td>
<td>Degree Applicable 54 hours lecture Advisory: FIRE 1 Building construction and fire code safety effects on pre-planning, engineering, inspections, fire ground operations, fire and building codes relationships.</td>
</tr>
<tr>
<td>FIRE 5</td>
<td>Fire Behavior and Combustion</td>
<td>3</td>
<td>Degree Applicable 54 hours lecture Advisory: FIRE 1 Theory of how and why fires start, spread and are controlled; in depth study of fire chemistry and physics, characteristics of materials, extinguishing of materials, extinguishing agents and fire control techniques.</td>
</tr>
<tr>
<td>FIRE 6</td>
<td>Hazardous Materials/ICS</td>
<td>3</td>
<td>Degree Applicable 54 hours lecture Advisory: FIRE 1 Hazardous chemicals, their physical properties, use in industry, characteristics when involved in spills, fire and accidents. Information regarding emergency procedures, legal requirements, compliance to regulations, health effects and treatment, protocols that meet OSHA requirements.</td>
</tr>
<tr>
<td>FIRE 7</td>
<td>Fire Fighting Tactics and Strategy</td>
<td>3</td>
<td>Degree Applicable 54 hours lecture Advisory: FIRE 1 or equivalent taken prior Principles of fire control through utilization of staff, equipment and extinguishing agents, fire command and control procedures, understanding types of building construction as it relates to fire control, review of fire chemistry, pre-fire planning, organized approach to decision making on the fire scene, basic firefighting strategy and tactics.</td>
</tr>
<tr>
<td>FIRE 8</td>
<td>Fire Company Organization and Management</td>
<td>3</td>
<td>Degree Applicable 54 hours lecture Advisory: FIRE 1 Fire department company organization, management, leadership, company officer responsibilities, personnel issues, administration, communication, firefighter safety and wellness, firefighting capability, records, and reports.</td>
</tr>
<tr>
<td>FIRE 9</td>
<td>Fire Hydraulics</td>
<td>3</td>
<td>Degree Applicable 54 hours lecture Advisory: FIRE 1 or equivalent taken prior and eligibility for MATH 51 Mathematics, hydraulic laws and formulas as applied to fire service. Application of formulas and mental calculation to hydraulic problems, water supply problems, and underwriter requirements for pumps.</td>
</tr>
<tr>
<td>FIRE 10</td>
<td>Arson and Fire Investigation</td>
<td>3</td>
<td>Degree Applicable 54 hours lecture Advisory: FIRE 1 or equivalent taken prior Cause, origin, arson, incendiaries, related laws and types of incendiary fires. Methods of determining fire cause, recognizing and preserving evidence, interviewing and detaining witnesses, adult and juvenile fire setters, court procedure and testimony.</td>
</tr>
<tr>
<td>FIRE 11</td>
<td>Fire Apparatus and Equipment</td>
<td>3</td>
<td>Degree Applicable 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.</td>
</tr>
<tr>
<td>FIRE 12</td>
<td>Wildland Fire Control</td>
<td>4.5</td>
<td>Degree Applicable 79 hours lecture Advisory: Eligibility for ENGL 68 Addresses wildland fire behavior, safety considerations, strategy, tactics, and operational differences within the wildland urban interface. Field trip required.</td>
</tr>
<tr>
<td>FIRE 13</td>
<td>Principles of Fire and Emergency Services Safety and Survival</td>
<td>3</td>
<td>Degree Applicable 54 hours lecture Advisory: FIRE 1 Fire Technology principles. History of the National Firefighter Life Safety Initiative and need for cultural and behavioral change. This course meets the National Fire and Emergency Services Higher Education objectives as it pertains to firefighter safety and survival techniques used in today’s fire service.</td>
</tr>
<tr>
<td>FIRE 86</td>
<td>Basic Fire Academy</td>
<td>14.5</td>
<td>Degree Applicable 135 hours lecture 383 hours lab Prerequisite: FIRE 1 through 5 and FIRE 13 or equivalent, KIN 50, approved EMT course completion, and either KINF 51 or KINF 52 (or equivalent). Corequisite: KINF 53 Standard fire department apparatus and equipment, salvage covers and fire extinguishment techniques in accordance with the State Board of Fire Services. Prepares students to meet manipulative skills standards established by the local fire agencies, associations and unions.</td>
</tr>
</tbody>
</table>
Course Descriptions

FIRE 91 — Fire Academy Ladder Orientation 1 Unit
Not Degree Applicable
(May be taken for Pass/No Pass only)
8 hours lecture
32 hours lab
Intensive training in ladder manipulation to prepare students for Fire Academy and physical fitness tests given by the fire departments.

FIRE 93 — Firefighter 1 Skills Review and Testing 1 Unit
May be taken for Pass/No Pass only
4 hours lecture
36 hours lab
Prerequisite: FIRE-86 Basic Fire Academy course completion
Review of skills learned in the basic fire academy in accordance with the State Fire Marshal Firefighter 1 curriculum. This course also provides the student the opportunity to take the National Capstone tests for International Fire Service Accreditation Congress (IFSAC) and National Board on Fire Services Professional Qualifications (Pro Board) certification. Successful completion of this course would provide the student with the opportunity to apply for employment outside the state of California with those states that offer reciprocity.

FIRE 96 — Work Experience Fire Science 1 to 4 Units
Not Degree Applicable
(May be taken for Pass/No Pass only)
75 to 300 hours lab
Prerequisite: Compliance with Work Experience regulations as designated in the College Catalog
Work experience in fire service at an approved work site which is related to classroom instruction. A minimum of 75 paid or 60 non-paid clock hours per semester of supervised work is required for each unit of credit. It is recommended that the hours per week be equally distributed throughout the semester. This course is available to students achieving a minimum of 12 units in fire service.

FIRE 100 — Fire Prevention: Company Officer’s Fire and Life Safety Inspections 1.5 Units
Degree Applicable
24 hours lecture
8 hours lab
Company Officer certification track and Capstone Task Book process including knowledge and skills related to the Company Officer’s role in fire prevention, the relationship between life safety and building construction, the elements of a quality company inspection program, and how to address complex hazards encountered during an inspection.

FIRE 101 — Command 1A: Structure Fire Command Operations for Company Officers 1.5 Units
Degree Applicable
24 hours lecture
16 hours lab
Prerequisite: Fire Academy Course Completion Certificate/Prevention 1 I-200 online certificate
Principles of command for the Company Officer including the development of incident priorities, strategy, tactics, safety, and the risk management process. An overview of Company Officer Pre and Post Incident planning considerations, and crew roles and responsibilities. Each student will have the opportunity to gain experience through structure fire incident simulations and role play.

FIRE 102 — Fire Command 1B: Incident Management 1.5 Units
Degree Applicable
24 hours lecture
16 hours lab
Prerequisite: Command 1A I-200 online certificate AND Fire 101
Tactics, strategies, and scene management for multi-casualty incidents, hazardous materials incidents, and wildland fires. Each student also has the opportunity to increase his or her knowledge and skills by handling initial operations at these types of incidents through simulation and class activities.

FIRE 103 — Command 1C: Wildland Urban Interface Operations for Company Officer 1.5 Units
Degree Applicable
24 hours lecture
16 hours lab
Prerequisite: Fire Academy Course Completion Certificate AND FIRE 101 ANDI-200 (FEMA online certificate course) AND S-290/NWCG online course is accepted
Principles of command in the wildland urban interface environment. An overview of the concepts of command safety and the risk management process, preincident planning considerations, command considerations at wildland incidents, fire behavior forecasting, firefighting limitations, key points from historic fires, the challenges of local conditions, and public expectations.

FIRE 104 — Training Instructor 1A: Cognitive 1.5 Units
Degree Applicable
24 hours lecture
16 hours lab
Prerequisite: FIRE-86 Basic Fire Academy course completion
Principles of command for the Company Officer including the development of incident priorities, strategy, tactics, safety, and the risk management process. An overview of Company Officer Pre and Post Incident planning considerations, and crew roles and responsibilities. Each student will have the opportunity to gain experience through structure fire incident simulations and role play.

FIRE 105 — Training Instructor 1B: Psychomotor 1.5 Units
Degree Applicable
24 hours lecture
16 hours lab
Prerequisite: FIRE 104
Training Instructor 1B is part of the State Fire Marshal Fire Officer Certification track. Methods/techniques for training with the latest concepts in career education; selecting, adapting, organizing, and using instructional materials appropriate for teaching psychomotor lessons; criteria and methods to evaluate teaching and learning efficiency; and an opportunity to apply major principles of learning through teaching demonstrations.

FIRE 106 — Fire Investigation 1A: Fire Origin and Cause Determination 1.5 Units
Degree Applicable
24 hours lecture
16 hours lab
Fire Investigation 1A: Fire Origin and Cause Determination is a component of the Fire Marshal Fire Officer certification track including fire scene investigation. The focus of the course is to provide information on fire scene indicators and to determine the fire’s origin.

FIRE 107 — Management 1: Management/Supervision for Company Officers 1.5 Units
Degree Applicable
24 hours lecture
16 hours lab
Fire Management 1: Management/Supervision for Company Officers course prepares or enhances the first line supervisor’s ability to supervise subordinates. Key management concepts and practices utilized and including discussions about decision making, time management, leadership styles, personnel evaluations, and counseling guidelines.
**FIRE 108 — ICS 300: Advance Incident Command**  
1 Unit  
Degree Applicable  
16 hours lecture  
8 hours lab  
Prerequisite: ICS 100 and ICS 200 online FEMA certificates  
ICS 300 is part of the State Fire Marshal Officer Certification track and intended for persons serving as command staff, section chiefs, strike team leaders, task force leaders, unit leaders, division/group supervisors, branch directors, and multi-agency coordination system/emergency operations center staff. Topics include Incident Command System (ICS) staffing and organization, transfer of command, unified command functions in a multi-jurisdictional or multi-agency incident, ICS forms, resource management, interagency mission planning and procurement.

**FRCH 1 — Elementary French**  
4 Units  
Degree Applicable, CSU, UC  
72 hours lecture  
Beginning course for students without prior exposure to French. Begins to develop the ability to converse, read and write in French. Emphasis is on oral proficiency. Includes the study of principles of language learning, pronunciation, basic vocabulary and grammatical structures. Extensive exposure to the cultures of French-speaking countries.

**FRCH 2 — Continuing Elementary French**  
4 Units  
Degree Applicable, CSU, UC  
72 hours lecture  
Prerequisite: FRCH 1 or equivalent  
Further development of conversational, reading and writing skills in French, with emphasis on communicative skills, expansion of vocabulary and understanding of structure. Extensive exploration and analysis of the cultures of French-speaking countries.

**FRCH 3 — Intermediate French**  
4 Units  
Degree Applicable, CSU, UC  
(54 hours lecture)  
(8 hours laboratory)  
Prerequisite: FRCH 2 or equivalent  
Expansion of vocabulary and structural components. Further development of communicative proficiency with increasing emphasis on reading and writing. Extensive exposure to culture from France and other French-speaking countries.

**FRCH 4 — Continuing Intermediate French**  
4 Units  
Degree Applicable, CSU, UC  
(May be taken for option of letter grade or Pass/No Pass)  
72 hours lecture  
Prerequisite: FRCH 3  
Continued development of intermediate-level proficiency in French. Increasing emphasis on reading and writing. Extensive exposure to cultural elements such as art, music, film, and history from France and other French-speaking countries.

**FRCH 53 — Intermediate Conversational French**  
3 Units  
Degree Applicable, CSU, UC  
(May be taken for option of letter grade or Pass/No Pass)  
54 hours lecture  
Prerequisite: FRCH 2  
Intermediate level fluency through expansion of vocabulary and practical use of language.

**FRCH 54 — Continuing Intermediate Conversational French**  
3 Units  
Degree Applicable, CSU, UC  
(May be taken for option of letter grade or Pass/No Pass)  
54 hours lecture  
Prerequisite: FRCH 3 or FRCH 53 or equivalent  
Continuing to intermediate fluency through further expansion of vocabulary and practical use of language.

**FRCH 60 — French Culture Through Cinema**  
3 Units  
Degree Applicable, CSU, UC  
(May be taken for option of letter grade or Pass/No Pass)  
54 hours lecture  
French culture and history as presented in classic and contemporary French films. Analysis of characters and political, social and artistic movements in France and other Francophone countries as reflected in the works of French-speaking film directors and writers. Lectures and class discussions conducted in English. All films with English subtitles.

**GEOG 1 — Elements of Physical Geography**  
3 Units  
Degree Applicable, CSU, UC  
54 hours lecture  
Prerequisite: Eligibility for ENGL 68  
Study of the natural processes creating the earth’s physical environments with emphasis on the inter-relationships of natural processes and systems; general atmospheric circulation, earth-sun relationships, oceanic circulation, water and energy budgets, plate tectonics, and the shaping of the physical landscape.

**GEOG 1H — Elements of Physical Geography - Honors**  
3 Units  
Degree Applicable, CSU, UC  
54 hours lecture  
Prerequisite: Acceptance into the Honors Program  
Study of the natural processes creating the earth’s physical environments with emphasis on the inter-relationships of natural processes and systems; general atmospheric circulation, earth-sun relationships, oceanic circulation, water and energy budgets, plate tectonics, and the shaping of the physical landscape. An honors course designed to provide an enriched experience. Students may not receive credit for both GEOG 1 and GEOG 1H.

**GEOG 1L — Physical Geography Laboratory**  
1 Unit  
Degree Applicable, CSU, UC  
54 hours lab  
Corequisite: GEOG 1 or GEOG 1H (May have been taken previously)  
Advisory: MATH 50  
Geographical observations, experiments, and demonstrations in a laboratory setting to explore natural earth processes and systems.

**GEOG 1LH — Physical Geography Laboratory - Honors**  
1 Unit  
Degree Applicable, CSU, UC  
54 hours lab  
Prerequisite: Acceptance into the Honors Program  
Corequisite: GEOG 1 or GEOG 1H (May have been taken previously)  
Advisory: MATH 50  
Geographical observations, experiments, and demonstrations in a laboratory setting to explore natural earth processes and systems. An honors course designed to provide an enriched experience. Students may not receive credit for both GEOG 1L and GEOG 1LH.

**GEOG 2 — Human Geography**  
3 Units  
Degree Applicable, CSU, UC  
54 hours lecture  
Prerequisite: Eligibility for ENGL 68  
Human geography with emphasis on critical areas of inquiry and research. Focus on the interconnections of place and process in several sites around the globe; comprehension of important terms and concepts; and literacy in the geography of place names and in world regional understanding.

**GEOG 2H — Human Geography - Honors**  
3 Units  
Degree Applicable, CSU, UC  
54 hours lecture  
Prerequisite: Acceptance into the Honors Program  
Human geography with emphasis on critical areas of inquiry and research. Focus on the interconnections of place and process in several sites around the globe; comprehension of important terms and concepts; and literacy in the geography of place names and in world regional understanding. An honors course designed to provide an enriched experience. Students may not receive credit for both GEOG 2 and GEOG 2H.
Course Descriptions

**GEOG 5 — World Regional Geography** 3 Units
(C-ID GEOG 125) Degree Applicable, CSU, UC
54 hours lecture
Prerequisite: Eligibility for ENGL 68
Developmental study of the world’s regions, addressing the major regions of the world in terms of population, resources, economic development, physical environment, and geographic problems.

**GEOG 8 — The Urban World** 3 Units
(May be taken for option of letter grade or Pass/No Pass)
54 hours lecture
Geographical analysis of past and current patterns of world urbanization. Emphasis is on city origins, growth, development, and current problems. Off-campus assignments may be required.

**GEOG 10 — Introduction to Geographic Information Systems** 3 Units
(C-ID GEOG 155) Degree Applicable, CSU, UC
36 hours lecture
54 hours lab
Advisor: Eligibility for ENGL 68
Principles, theory and operations of geographic information systems (GIS), including geospatial data models, analytical functions, data quality, map design and visual communication, and social and environmental applications of GIS.

**GEOG 11 — Intermediate Geographic Information Systems (GIS)** 3 Units
Degree Applicable
54 hours lecture
Prerequisite: GEOG 10
Geographic Information Systems (GIS) concepts such as spatial analysis, editing, and raster data sets. Includes hands on experience using hardware and software and emphasizes vector-based and raster-based data models using ArcGIS software and the software extensions.

**GEOG 30H — Geography of California - Honors** 3 Units
(C-ID GEOG 140) Degree Applicable, CSU, UC
54 hours lecture
Prerequisite: Acceptance into the Honors Program
Thematic approach to issues, processes, and topics relevant to the study of California geography. Includes an examination of the physical processes that shape the landscapes of California, the interaction of humans with these physical processes (particularly the importance of water), and the cultural and social landscapes that have evolved as a result of this human-environment interface. An honors course designed to provide an enriched experience. Students may not receive credit for both GEOG 30 and GEOG 30H. Field trip required.

**GEOG 30L — Geography Service Learning Laboratory** 5 to 2 Units
Degree Applicable
(May be taken for option of letter grade or Pass/No Pass)
27 to 108 hours lab
Corequisite: GEOG 91 (May be taken previously)
Environmental needs of the community through service learning projects. Students will perform work needed for restoring significant habitats damaged by pollution, fire, erosion, or invasive species. Examples of some of the work include planting trees, building trails, or collecting litter. Field trips required.

**GEOG 91 — Service Learning for Geography** 1 Unit
Degree Applicable, CSU
18 hours lecture
Increases awareness and appreciation for civic responsibility to the environment through service learning. Students will assess the need for restoring significant habitats damaged by pollution, fire, erosion, or invasive species and learn the importance of being good stewards of the environment. Field trips required.

**GEOG 99 — Special Projects in Geography** 2 Units
Degree Applicable, CSU
36 hours lecture
Offers students recognition for their academic interests in geography and the opportunity to explore the discipline of geography in greater depth. The content and methods of the course vary from semester to semester depending on the particular project under consideration.

**GEOG 11 — Intermediate Geographic Information Systems (GIS)** 3 Units
Degree Applicable, CSU, UC
54 hours lecture
Prerequisite: GEOG 10
Geographic Information Systems (GIS) concepts such as spatial analysis, editing, and raster data sets. Includes hands on experience using hardware and software and emphasizes vector-based and raster-based data models using ArcGIS software and the software extensions.

**GEOG 30H — Geography of California - Honors** 3 Units
(C-ID GEOG 140) Degree Applicable, CSU, UC
54 hours lecture
Prerequisite: Acceptance into the Honors Program
Thematic approach to issues, processes, and topics relevant to the study of California geography. Includes an examination of the physical processes that shape the landscapes of California, the interaction of humans with these physical processes (particularly the importance of water), and the cultural and social landscapes that have evolved as a result of this human-environment interface. An honors course designed to provide an enriched experience. Students may not receive credit for both GEOG 30 and GEOG 30H. Field trip required.

**GEOG 30L — Geography Service Learning Laboratory** 5 to 2 Units
Degree Applicable
(May be taken for option of letter grade or Pass/No Pass)
27 to 108 hours lab
Corequisite: GEOG 91 (May be taken previously)
Environmental needs of the community through service learning projects. Students will perform work needed for restoring significant habitats damaged by pollution, fire, erosion, or invasive species. Examples of some of the work include planting trees, building trails, or collecting litter. Field trips required.

**GEOG 91 — Service Learning for Geography** 1 Unit
Degree Applicable, CSU
18 hours lecture
Increases awareness and appreciation for civic responsibility to the environment through service learning. Students will assess the need for restoring significant habitats damaged by pollution, fire, erosion, or invasive species and learn the importance of being good stewards of the environment. Field trips required.

**GEOG 99 — Special Projects in Geography** 2 Units
Degree Applicable, CSU
36 hours lecture
Offers students recognition for their academic interests in geography and the opportunity to explore the discipline of geography in greater depth. The content and methods of the course vary from semester to semester depending on the particular project under consideration.

**GEOG 1 — Physical Geology** 4 Units
Degree Applicable, CSU, UC
54 hours lecture
54 hours lab
Prerequisite: Eligibility for MATH 51
Minerals, rocks, earthquakes, volcanoes, and landscapes are presented within a framework of plate tectonics operating in concert with atmospheric and oceanic processes. A required course for students entering geoscience majors. May be taken by non-majors as a transferable physical science plus lab. Required field trips may involve overnight camping.

**GEOG 2 — Historical Geology** 4 Units
Degree Applicable, CSU, UC
54 hours lecture
54 hours lab
Prerequisite: GEOG 1 or GEOG 8L
An Earth systems approach applied to tracing the tectonic, biologic, and climatic development of Earth, with focus on North America, through geologic time. Study of Earth history using geologic maps, cross-sections, minerals, rocks, and fossils and integrating basic geological field methods. Required field trips may involve overnight camping.

**GEOG 7 — Geology of California** 3 Units
Degree Applicable, CSU, UC
54 hours lecture
Natural provinces of California, namely their mineral, rock, and petroleum resources, volcanoes and earthquakes, landscapes, and geologic history as influenced by plate tectonic and surface processes. Field trips are required and may involve overnight camping.

**GEOG 8 — Earth Science** 3 Units
Degree Applicable, CSU, UC
54 hours lecture
Fundamentals of geology, oceanography, meteorology, and astronomy. The companion Earth Science laboratory (GEOG 8L) is recommended for students needing a lab to transfer to a 4-year college/university. Field trips are required.

**GEOG 8H — Earth Science - Honors** 3 Units
Degree Applicable, CSU, UC
54 hours lecture
Prerequisite: Acceptance into the Honors Program
An honors course designed to provide an enriched experience. Fundamentals of geology, oceanography, meteorology, and astronomy. The companion Earth Science laboratory (GEOG 8L) is recommended for students needing a lab to transfer to a 4-year college or university. Field trips are required. Students may not receive credit for both GEOG 8 and GEOG 8H.
**Course Descriptions**

**HISTORY**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Units</th>
<th>Degree Applicable</th>
<th>CSU, UC</th>
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</thead>
<tbody>
<tr>
<td>HIST 1</td>
<td>History of the United States</td>
<td>3</td>
<td>Degree Applicable</td>
<td>CSU, UC</td>
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<tr>
<td>54 hours lecture</td>
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<td>Prerequisite: Eligibility for ENGL 1A</td>
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<td>History of the United States from Native American and colonial times to the present. Designed for transfer students who need a one-semester course in United States history to meet general education requirements. History and social science majors should take History 7 and 8. Satisfies the requirement for a course in American history, including the study of American institutions and ideals as required by Title 5 of the California Administrative Code.</td>
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| HIST 3 | World History: Prehistoric to Early Modern | 3 | Degree Applicable | CSU, UC |
| 54 hours lecture |
| Prerequisite: Eligibility for ENGL 1A |
| Human societies from their origins to the Early Modern period from a global and comparative perspective including social, political, economic, and cultural institutions and changes. |

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<th>Section 10</th>
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**GERMAN**

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<tr>
<th>Course Code</th>
<th>Title</th>
<th>Units</th>
<th>Degree Applicable</th>
<th>CSU, UC</th>
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<tbody>
<tr>
<td>GERM 1</td>
<td>Elementary German</td>
<td>4</td>
<td>Degree Applicable</td>
<td>CSU, UC</td>
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<tr>
<td>72 hours lecture</td>
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<td>For students with no previous German. Develops the ability to converse, read, and write in German. Emphasis on oral proficiency. Includes essentials of pronunciation, vocabulary, idioms, and grammatical structures along with an introduction to Germanic culture.</td>
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| GERM 2 | Continuing Elementary German | 4 | Degree Applicable | CSU, UC |
| 72 hours lecture |
| Prerequisite: GERM 1 |
| Further development of conversational reading and writing skills in German with emphasis on communication skills, expansion of vocabulary, and understanding of structure. Further study of Germanic culture. |

| GERM 3 | Intermediate German | 4 | Degree Applicable | CSU, UC |
| 72 hours lecture |
| Prerequisite: GERM 2 |
| Communicative proficiency in German and exploration of Germanic culture. Further study and review of grammar and expansion of vocabulary. Increasing emphasis on reading and writing in German. |

**Course Descriptions**

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<tr>
<th>Course Code</th>
<th>Title</th>
<th>Units</th>
<th>Degree Applicable</th>
<th>CSU, UC</th>
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<tbody>
<tr>
<td>GEOL 8L</td>
<td>Earth Science Laboratory</td>
<td>1</td>
<td>Degree Applicable</td>
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<tr>
<td>54 hours lab</td>
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<td>Corequisite: GEOL 8 or GEOL 8H (May have been taken previously)</td>
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<td>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.</td>
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| GEOL 9 | Environmental Geology | 3 | Degree Applicable | CSU, UC |
| 54 hours lecture |
| Advisory: ENGL 1A |
| Human interactions with the geological environment for non-science majors. Relevant aspects of the geological environment and the problems currently caused by humans as they use the earth and its resources. Geologic hazards, including earthquakes, volcanoes, landslides, floods, subsidence. Emphasis on geological viewpoints concerning waste disposal, pollution, geothermal energy, fossil fuels, and mining. Geologic practices related to sound land management, conservation of resources, and protection of the environment. Field trips required. |

| GEOL 10 | Natural Disasters | 3 | Degree Applicable | CSU, UC |
| 54 hours lecture |
| Surveys the hazards faced by humans from the natural environment. Analyzes a variety of hazards from a geological perspective. Studies the impact humans have on influencing or exacerbating natural disasters. Includes the role of government in responding to natural disasters. Field trips required. |

| GEOL 24 | Geologic Field Studies: Central California | 4 | Degree Applicable | CSU, UC |
| (May be taken for option of letter grade or Pass/No Pass) |
| 54 hours lecture |
| 54 hours lab |
| Field studies of selected central California geological provinces and surrounding areas. Overnight field trips required. Trips require significant hiking. |

| GEOL 25 | Geologic Field Studies: Southern California | 4 | Degree Applicable | CSU, UC |
| 54 hours lecture |
| 54 hours lab |
| Field studies of selected southern California geological provinces and surrounding areas. Overnight field trips required. Trips require significant hiking. |

| GEOL 29 | Special Topics in Field Geology | 3 | Degree Applicable | CSU, UC |
| 18 hours lecture |
| 108 hours lab |
| Advisory: GEOL 1 or GEOL 8 |
| Field studies of designated geologic provinces and regions. Emphasis on rock identification and interpretation of geologic histories of field areas. Extended overnight field trips, camping, and strenuous hiking required. |

| GEOL 99 | Special Projects in Geology | 2 | Degree Applicable | CSU, UC |
| (May be taken for option of letter grade or Pass/No Pass) |
| 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. |

| HIST 1 | History of the United States | 3 | Degree Applicable | CSU, UC |
| 54 hours lecture |
| Prerequisite: Eligibility for ENGL 1A |
| History of the United States from Native American and colonial times to the present. Designed for transfer students who need a one-semester course in United States history to meet general education requirements. History and social science majors should take History 7 and 8. Satisfies the requirement for a course in American history, including the study of American institutions and ideals as required by Title 5 of the California Administrative Code. |

| HIST 3 | World History: Prehistoric to Early Modern | 3 | Degree Applicable | CSU, UC |
| 54 hours lecture |
| Prerequisite: Eligibility for ENGL 1A |
| Human societies from their origins to the Early Modern period from a global and comparative perspective including social, political, economic, and cultural institutions and changes. |

| HIST 3H | World History: Prehistoric to Early Modern - Honors | 3 | Degree Applicable | CSU, UC |
| 54 hours lecture |
| Prerequisite: Acceptance into the Honors Program |
| Human societies from their origins to the Early Modern period from a global and comparative perspective including social, political, economic, and cultural institutions and changes. An honors course designed to provide an enriched experience. Students may not receive credit for both HIST 3 and HIST 3H. |

| HIST 4 | World History: Early Modern to the Present | 3 | Degree Applicable | CSU, UC |
| (C-ID HIST 160) |
| 54 hours lecture |
| Prerequisite: Eligibility for ENGL 1A |
| Social, political, economic, and cultural changes during the modern period from a global and comparative perspective. |

| HIST 4H | World History: Early Modern to the Present- Honors | 3 | Degree Applicable | CSU, UC |
| (C-ID HIST 160) |
| 54 hours lecture |
| Prerequisite: Acceptance into the Honors Program |
| Social, political, economic, and cultural changes during the modern period from a global and comparative perspective. Includes extensive reading and writing assignments. Students may not receive credit for both HIST 4 and HIST 4H. |
### Course Descriptions

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<td>HIST 7 —</td>
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<td>Survey of American history from Native American origins through post-Civil War Reconstruction with an encompassing approach to the United States and its major ethnic and social groups. Explores the influence of the geography and environment of North America and the ethnic, social, and religious complexity of the population. Also examines political, philosophical, and intellectual influences on the founding fathers, American political institutions, and the citizens of the country. Satisfies the requirement for a course in American history, including the study of American institutions and ideas and the Constitution of the United States as required by Title 5 of the California Administrative Code.</td>
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<td>HIST 7H —</td>
<td>History of the United States to 1877 — Honors</td>
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<td>HIST 8 —</td>
<td>History of the United States from 1865</td>
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<td>Prerequisite: Eligibility for ENGL 1A</td>
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<td>United States history from 1865 to the present. Examines social, economic, political, intellectual, and military themes and patterns of United States development. Designed for history, social science, or humanities majors, or for transfer students who need a year course in United States history to meet general education requirements. Satisfies the requirement for a course in American history, including the study of American institutions and ideals and the principles of State and local government as required by Title 5 of the California Administrative Code.</td>
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<td>HIST 8H —</td>
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<td>HIST 10 —</td>
<td>History of Premodern Asia</td>
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<td>Prerequisite: Eligibility for ENGL 68</td>
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<td></td>
<td>History of East, South, and Southeast Asia from the prehistoric age to the early modern period. Emphasizes social, political, economic, and cultural changes in Asia from a regional and comparative perspective.</td>
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<td>HIST 11 —</td>
<td>History of Modern Asia</td>
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<td>Prerequisite: Eligibility for ENGL 68</td>
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<td>History of East, South, and Southeast Asia from the early modern period to the present. Emphasizes social, political, economic, and cultural changes in Asia during the modern period from a regional and comparative perspective.</td>
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<td>HIST 16 —</td>
<td>The Wild West - A History, 1800-1890</td>
<td>3</td>
<td>Degree Applicable</td>
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<td>(May be taken for option of letter grade or Pass/No Pass)</td>
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<td>Prerequisite: Eligibility for ENGL 68</td>
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<td></td>
<td>History of the 19th Century Trans-Mississippi West (also known as the Wild West or the 19th Century American West) including significant historical, economic, and political events and personalities which make up this time period.</td>
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<td>HIST 19 —</td>
<td>History of Mexico</td>
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<td>Prerequisite: Eligibility for ENGL 68</td>
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<td>Cultural and social history of the Mexican people from pre-Colombian civilization to modern Mexico.</td>
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<td>HIST 30 —</td>
<td>History of the African American 1619-1877</td>
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<td>Prerequisite: Eligibility for ENGL 68</td>
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<td>History of African Americans from the Reconstruction period to the present, including historical processes and their impact on modern U.S. society. A critical analysis will be made of the contributions of African Americans to the historical development of the United States, and the transformations that have occurred as a result. Satisfies the requirement for a course in American institutions and ideals and the Constitution of the United States as required by Title 5 of the California Administrative Code.</td>
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<td>HIST 31 —</td>
<td>History of the African American</td>
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<td>Prerequisite: Eligibility for ENGL 68</td>
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<td>HIST 35 —</td>
<td>History of Africa</td>
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<td>Prerequisite: Eligibility for ENGL 68</td>
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<td>History of Africa from prehistoric times to the present with a focus on cultural, social, political, and economic changes. Topics include ancient African societies, European colonialism, and the reemergence of independent African states in recent decades.</td>
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<td>HIST 36 —</td>
<td>Women in American History</td>
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<td>Degree Applicable</td>
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<td>Prerequisite: Eligibility for ENGL 68</td>
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<td>Women’s experience placed within the context of major themes of United States history, addressing issues and debates related to gender construction and identity from Colonial times to the present. Political, economic, and social currents within in the context of race, ethnicity, sexual orientation, and class are examined and analyzed. This course satisfies the requirement for a course in American history including the study of American institutions and ideals, as required by Title 5 of the California Administrative Code.</td>
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<td>HIST 39 —</td>
<td>California History</td>
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<td>Prerequisite: Eligibility for ENGL 68</td>
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<td>The social, intellectual, economic, and political development of California and the Pacific Coast from earliest times to the present.</td>
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\section*{HIST 40 — History of the Mexican American} \hspace{1cm} 3 Units
Degree Applicable, CSU, UC

54 hours lecture
Prerequisite: Eligibility for ENGL 68
U.S. history from colonial times to the present with a special emphasis on the role of Mexican Americans in the development of the nation. Satisfies the requirement for a course in American History, including the study of American institutions and ideals as required by Title 5 of the California Administrative Code.

\section*{HIST 44 — History of Native Americans} \hspace{1cm} 3 Units
Degree Applicable, CSU, UC

54 hours lecture
Prerequisite: Eligibility for ENGL 68
History of the United States from Colonial times to the present with a special emphasis on the role of Native Americans. Examines the role Euro-American social, political, and economic movements play in the Native American experience and the mutual relationships generated through these factors. Critically analyzes how the Native American narrative is woven into the fabric of U.S. history and is an essential component of the complete American story.

\section*{HIST 99 — Special Projects in History} \hspace{1cm} 2 Units
Degree Applicable, CSU

36 hours lecture
Prerequisite: Eligibility for ENGL 1A
Offers selected students recognition for their academic interests and ability 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 by which students vary from semester to semester and depend on the particular project under consideration. Instructor authorization needed prior to enrollment.

\section*{HISTOTECHNOLOGY}

\section*{HT 1 — Introduction to Histotechnology} \hspace{1cm} 1 Unit
Degree Applicable

18 hours lecture
Advisory: Eligibility for ENGL 1A
The role of histotechnicians in preparation and analysis of tissues samples for diagnostic and research purposes. Internet resources, support organizations and periodical references for histotechnicians, as well as regulatory agencies. Set up of an educational plan and portfolio to be used throughout the program.

\section*{HT 2 — Scientific Basics for Histotechnicians} \hspace{1cm} 3 Units
Degree Applicable

54 hours lecture
Advisory: CHEM 10 AND Eligibility for ENGL 1A
General laboratory issues including general laboratory protocols (GLP’s), safety, ethics, and terminology relative to the preparation of tissue samples.

\section*{HT 10 — Histology} \hspace{1cm} 3 Units
Degree Applicable

36 hours lecture
54 hours lab
Prerequisite: ANAT 35
Microscopy, cell structure, cell reproduction and staining. Identification of tissues, organs and special microstructures, and their detailed morphology. Involves distinguishing normal features from pathological conditions.

\section*{HT 12 — Beginning Histotechniques} \hspace{1cm} 5 Units
Degree Applicable

54 hours lecture
108 hours lab
Prerequisite: HT 1 and HT 2
Advisory: MICR 22
Theory and practical applications and skill-building in tissue fixation, processing, embedding, sectioning, microtomy, hematoxylin-eosin staining (H and E), and microorganism staining. Quality control as it relates to routine histological techniques and equipment.

\section*{HT 14 — Advanced Histotechniques} \hspace{1cm} 5 Units
Degree Applicable

54 hours lecture
108 hours lab
Prerequisite: HT 12
Practical applications of special stains for carbohydrates, amyloid, connective tissues, muscle and nervous tissues, including silver stains. Introduction to frozen sections, cytology preparation, and microwave technology. Field trip required.

\section*{HT 16 — Histochemistry and Immunohistochemistry} \hspace{1cm} 4 Units
Degree Applicable

54 hours lecture
54 hours lab
Prerequisite: HT 12 and HT 10
Practical applications of enzyme and immunological reactions as they relate to tissue staining. Field trip required.

\section*{HT 17 — Work Experience in Histotechnology} \hspace{1cm} 1 to 4 Units
Degree Applicable

(May be taken for Pass/No Pass only)
75 to 300 hours lab
Prerequisite: HT 12 and compliance with Work Experience regulations as designated in the College Catalog
Provides histotechnology students with actual on-the-job experience in an approved work setting which is related to classroom instruction. A minimum of 75 paid or 60 non-paid clock hours per semester of supervised work is required for each unit of credit. It is recommended that the hours per week be equally distributed throughout the semester. Students who repeat this course will improve skills through further instruction and practice. Placement by Program Director.

\section*{HT 18 — Scientific Project in Histotechnology} \hspace{1cm} 3 Units
Degree Applicable

60 to 120 hours lab
Prerequisite: HT 12 and HT 10
Research project selected by student and advisor. Field trip required.

\section*{HRM 51 — Introduction to Hospitality} \hspace{1cm} 3 Units
Degree Applicable, CSU

54 hours lecture
Prerequisite: Eligibility for ENGL 68
Hospitality industry segments and types of operations with an emphasis on career opportunities. Includes an overview of: tourism, lodging, restaurants, managed services, gaming, recreation, event management, leadership, and marketing.

\section*{HRM 52 — Food Safety and Sanitation} \hspace{1cm} 1.5 Units
Degree Applicable, CSU

27 hours lecture
Prerequisite: Eligibility for ENGL 68
Principles of food safety and sanitation in the food service industry. Emphasis on the role of management in creating and implementing a culture of applied food safety practices within the workplace. Students must pass the ServSafe Food Protection Manager Certification exam to get credit for this course.

\section*{HRM 53 — Dining Room Service Management} \hspace{1cm} 3 Units
Degree Applicable, CSU

54 hours lecture
Prerequisite: Eligibility for ENGL 68
Skills and knowledge needed for all aspects of dining room service. Exploration of the various styles of service. Table setting, restaurant management, wine and beverage service, and service as a sales tool are discussed. Safety of both customer and staff are discussed. Field trip required.

\section*{HRM 54 — Basic Cooking Techniques} \hspace{1cm} 3 Units
Degree Applicable, CSU

36 hours lecture
54 hours lab
Prerequisite: HRM 52
Practical applications of enzyme and immunological reactions as they relate to tissue staining. Field trip required.

\section*{HRM 55 — Hospitality Supervision} \hspace{1cm} 3 Units
Degree Applicable, CSU

54 hours lecture
Prerequisite: HRM 52
Practical applications of enzyme and immunological reactions as they relate to tissue staining. Field trip required.

\section*{HRM 56 — Hospitality Supervision} \hspace{1cm} 3 Units
Degree Applicable, CSU

54 hours lecture
Prerequisite: HRM 52
Human resource management procedures and skills needed to hire, train, and manage employees in the hospitality industry. Role, responsibilities, and legal issues related to supervision. Application of management techniques including: effective communication, recruitment, selection, training, coaching, team building, performance evaluation, discipline, and conflict management.
Course Descriptions

**HRM 57 — Hospitality Cost Control**
3 Units
Degree Applicable, CSU
54 hours lecture
Corequisite: HRM 51 (May have been taken previously)
Analyzing and managing: food, beverage, labor, and other costs within a hospitality operation. Emphasis on problem solving, applying cost control techniques to maximize profits while managing expenses. Topics include: establishing standards, cost-volume-profit analysis, forecasting, purchasing and storage controls, menu costing and pricing, theft prevention and labor control.

**HRM 61 — Menu Planning**
3 Units
Degree Applicable, CSU
54 hours lecture
Advisory: HRM 51
Menu development, design, and analysis. Emphasis on demographics and market research, facility assessment, costing, pricing, menu analysis, menu design and layout. Includes a practical concept-to-creation capstone project.

**HRM 62 — Event Planning and Catering**
3 Units
Degree Applicable, CSU
54 hours lecture
Event planning and catering with an emphasis on organizing and catering both on-site and off-site events. Includes: event types, revenue-cost analysis, menu pricing, staff coordination, organizing logistical components, client negotiation and contracts, contracting vendors, conflict resolutions, and marketing.

**HRM 64 — Hospitality Financial Accounting**
3 Units
Degree Applicable, CSU
54 hours lecture
Prerequisite: BUSA 11 or Eligibility for MATH 50
Financial accounting specific to hospitality businesses. Emphasis on: bookkeeping, financial statements development and analysis, and tailoring the Uniform System of Accounting to hotels, restaurants, clubs and other food service operations.

**HRM 66 — Hospitality Law**
3 Units
Degree Applicable, CSU
54 hours lecture
Advisory: HRM 51
Business law topics as they relate to the hospitality industry. Principles of negligence, civil rights, contracts, liability, rights of guests and innkeepers, and labor law are covered. Field trip required.

**HRM 70 — Introduction to Lodging**
3 Units
Degree Applicable, CSU
54 hours lecture
Operations in the lodging industry including: hotel organization, front office operations, reservations, registration, guest services, security, front office accounting, housekeeping, night audit, sale and marketing, planning and evaluating, revenue management, and human resources. Independent field trips required for this course.

**HRM 81 — Garde Manger**
3 Units
Degree Applicable
36 hours lecture
Preparation and presentation of cold kitchen foods including: sauces, soups, salads, sandwiches, appetizers, hors d’oeuvres, and buffets.

**HRM 82 — Baking and Pastry**
3 Units
Degree Applicable
36 hours lecture
Preparation of baked goods and pastries including: breads, cakes, icing, laminated pastries, cookies, pies, tarts, and plated desserts.

**HRM 83 — International Cuisines**
3 Units
Degree Applicable
36 hours lecture
Preparation of international cuisines from Asia, Europe, the Mediterranean, and Latin America. Emphasis will be placed on regional dishes from: China, Japan, India, Thailand, Spain, Italy, France, Greece, Lebanon, and Mexico.

**HRM 91 — Hospitality Work Experience**
1 to 4 Units
Degree Applicable, CSU
(May be taken for Pass/No Pass only)
75 to 300 hours lab
Prerequisite: Compliance with Work Experience regulations as designated in the College Catalog
Provides students with on-the-job experience in an approved worksite which is related to classroom-based learning. A minimum of 75 paid or 60 non-paid clock hours per semester of supervised work is required for each unit of credit. It is recommended that the hours per week be equally distributed throughout the semester. Work experience placement is not guaranteed, but assistance is provided by faculty.

**HUMANITIES**

**HUMA 1 — The Humanities**
3 Units
Degree Applicable, CSU, UC
54 hours lecture
Prerequisite: Eligibility for ENGL 68
Interdisciplinary study of the artistic, musical, literary and philosophical accomplishments and achievements of women and men in western society from the ancient Middle East to the present. Emphasizes creating an awareness of human expression as it occurs in a historical and philosophical context. Off-campus assignments may be required.
IDE 160 — Intermediate CAD 3 Units  
Degree Applicable, CSU  
36 hours lecture  
54 hours lab  
Prerequisite: IDE 110 and IDE 120 and IDE 130  
Corequisite: IDE 150 and IDE 170  
Applications, methods, theories, and industrial design processes used in engineering and industrial design fields. A portfolio-based course that develops skills in sketching, communicating, constructing mock-ups and displays, prototyping, and 2D and 3D Computer Assisted Design (CAD) parametric solid modeling.

IDE 170 — Introduction to Prototyping 3 Units  
Degree Applicable, CSU  
36 hours lecture  
54 hours lab  
Prerequisite: IDE 110 and IDE 120 and IDE 130  
Corequisite: IDE 150 and IDE 160  
Processes and materials typically employed when creating breadboards, proof of concept models, form studies and production-intent prototypes. Provides hands-on experience with fabrication techniques including related tools and machinery. Emphasis is placed on the design process is influenced by material and manufacturing limitations.

IDE 210 — Advanced Media 3 Units  
Degree Applicable, CSU  
36 hours lecture  
54 hours lab  
Prerequisite: IDE 150 and IDE 160 and IDE 170  
Corequisite: IDE 220 and IDE 230  
Digital media used for designing, redesigning, and inventing industrial products. Develops illustration and conceptualization skills using media and technology such as digital project photography, 2D scanners, sketch tablets, and presentation and illustration software. Emphasis is placed on refining and completing a comprehensive portfolio.

IDE 220 — Advanced CAD 3 Units  
Degree Applicable, CSU  
36 hours lecture  
54 hours lab  
Prerequisite: IDE 150 and IDE 160 and IDE 170  
Corequisite: IDE 210 and IDE 220  
Complex surface modeling in hybrid surface and solid environments using rapid modeling methods. Integrates manufacturing technologies, materials, and machine design with an emphasis on translating concepts from visualization manufacturing projects generated using Computer Aided Manufacturing (CAM) and rapid prototyping technologies.

IDE 230 — Introduction to Mechanical Principles 3 Units  
Degree Applicable, CSU  
36 hours lecture  
54 hours lab  
Prerequisite: IDE 150 and IDE 160 and IDE 170  
Corequisite: IDE 210 and IDE 220  
Mechanical devices, concepts and principles common to manufactured products and manufacturing processes. Analysis, discussion, and problem solving related to mechanical design scenarios and supported by computer aided design (CAD). Exploration of inherent strengths and weaknesses of specific devices and various design approaches. Emphasis on the way mechanical principles affect design strategies.

IDE 250 — Product Design and Viability 6 Units  
Degree Applicable, CSU  
54 hours lecture  
162 hours lab  
Prerequisite: IDE 210 and IDE 220 and IDE 230  
Corequisite: IDE 270  
Product life cycle from design through manufacturing and distribution. Portfolio-based course that includes fabrication of a viable product and incorporates every stage of project management including research, graphic presentation, parts sourcing, material choices and fabrication of prototype.

IDE 270 — Manufacturing Processes and Materials 3 Units  
Degree Applicable, CSU  
9 hours lecture  
135 hours lab  
Prerequisite: IDE 210 and IDE 220 and IDE 230  
Corequisite: IDE 250  
Relationships between common manufacturing processes and associated materials including advantages, limitations, and their impact on the design process. Reverse engineering and Computer Aided Design (CAD) model construction assists with understanding common design approaches and real-world manufacturing problems and solutions.

IDE 270 — Introduction to Interior Design Laboratory 1 Unit  
Degree Applicable, CSU  
54 hours lab  
Prerequisite: IDE 10 (May have been taken previously)  
Field trips may be required.

INSP 67 — Reading Construction Drawings 3 Units  
Degree Applicable, CSU  
54 hours lecture  
Reading construction drawings as they apply to architecture, construction, interior design, and related fields. Off-campus assignments required.

INSP 70 — Elements of Construction 3 Units  
Degree Applicable, CSU  
54 hours lecture  
Construction processes, terminology and procedures. Topics include construction careers, building systems, sustainability, quality control, management and scheduling of resources (materials, equipment, time, personnel and finance).

INSP 71 — Construction Estimating 3 Units  
Degree Applicable, CSU  
54 hours lecture  
Construction estimating and bidding procedures using contract documents, construction drawings and cost data. Estimating methods and use of estimating forms or software, including detailed quantity take-offs of building materials and labor required in building construction.

INSP 87 — Fundamentals of Construction Inspection 3 Units  
Degree Applicable, CSU  
54 hours lecture  
Construction inspection of light-frame wood construction and steel structures. Topics include vertical and horizontal loads, stress analysis, framing and structural standards of lumber and steel, metallurgy and welding.
## Course Descriptions

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<tr>
<th>ID</th>
<th>Course Title</th>
<th>Units</th>
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Field trips may be required.
### ID 37 — Business Practices for Interior Design

3 Units  
Degree Applicable  
54 hours lecture  
Principles, procedures, and systems necessary for interior design professionals to start a business. Emphasis will be placed on contracts, legal issues, budgets, revenue generation, purchasing, billing, compensation and collection, interactions with clients, designers, installers, and suppliers. Field trips may be required.

### ID 38 — Internship in Interior Design

1 to 3 Units  
Degree Applicable  
(May be taken for Pass/No Pass only)  
75 to 225 hours lab  
Prerequisite: Compliance with Work Experience/Internship regulations as designated in the College Catalog  
Designed to provide the student with actual on-the-job experience in the interior design profession, which relates to classroom based learning. Placement is not guaranteed but assistance is provided by the interior design faculty. A minimum 75 paid clock hours or 60 non-paid clock hours per semester is required.

### ID 39 — Interior Design Studio II

3 Units  
Degree Applicable, CSU  
36 hours lecture  
54 hours lab  
Prerequisite: ID 26  
Advisory: ID 29  
Analysis and application of design concepts to interior environments. Focuses on the creative process of identifying and solving design problems incorporating universal and sustainable design. Includes research and analysis of client requirements for complex programs and their solutions in order to satisfy end-user needs, functional space requirements, public image, existing architectural elements, and site conditions. Portfolio pieces will be produced. Field trips may be required.

### ID 40 — Kitchen and Bath Studio I

3 Units  
Degree Applicable  
36 hours lecture  
54 hours lab  
Prerequisite: ID 22 or ARCH 141  
Advisory: ID 32 and ID 31 and ID 25  
Kitchen and bath design that focuses on ergonomic principles and specific materials including floor and wall surfaces, window treatments, cabinet selection, appliance and fixture selection, counter top selection, and lighting. Projects will consist of dimensioned floor plans, elevations, isometric drawings, perspective drawings, and section drawings completed in accordance with National Kitchen and Bath Association (NKBA) standards and nomenclature. Portfolio pieces will be produced. Field trips may be required.

### ID 41 — Kitchen and Bath Studio II

3 Units  
Degree Applicable, CSU  
36 hours lecture  
54 hours lab  
Prerequisite: ID 40  
Advisory: ID 29  
Kitchen and bath design that focuses on universal design, design concepts, and historical design for kitchen and bath projects. Emphasis is placed on ergonomics and Americans with Disabilities Act (ADA) considerations. Projects will utilize graphic standards as recommended by the National Kitchen and Bath Association (NKBA). Field trips may be required.

### ID 42 — Kitchen and Bath Studio III

3 Units  
Degree Applicable  
54 hours lab  
Prerequisite: Compliance with Work Experience/Internship regulations as designated in the College Catalog  
Designed to provide the student with actual on-the-job experience in the interior design profession at a National Kitchen and Bath Association (NKBA) member work site, which relates to students’ classroom based learning. Placement is not guaranteed but assistance is provided by the interior design faculty. A minimum 75 paid clock hours or 60 non-paid clock hours per semester is required.

### ID 43 — Kitchen and Bath Studio IV

3 Units  
Degree Applicable  
54 hours lab  
Prerequisite: Compliance with Work Experience/Internship regulations as designated in the College Catalog  
Continued exploration of kitchen and bath design concepts and presentation techniques. Portfolio pieces will be produced. Field trips may be required.

### ID 44 — Kitchen and Bath Studio V

3 Units  
Degree Applicable  
54 hours lab  
Prerequisite: Compliance with Work Experience/Internship regulations as designated in the College Catalog  
Continued exploration of kitchen and bath design concepts and presentation techniques. Portfolio pieces will be produced. Field trips may be required.

### ID 45 — Kitchen and Bath Studio VI

3 Units  
Degree Applicable  
54 hours lab  
Prerequisite: Compliance with Work Experience/Internship regulations as designated in the College Catalog  
Continued exploration of kitchen and bath design concepts and presentation techniques. Portfolio pieces will be produced. Field trips may be required.

### ID 46 — Kitchen and Bath Studio VII

3 Units  
Degree Applicable  
54 hours lab  
Prerequisite: Compliance with Work Experience/Internship regulations as designated in the College Catalog  
Continued exploration of kitchen and bath design concepts and presentation techniques. Portfolio pieces will be produced. Field trips may be required.

### ID 47 — Kitchen and Bath Studio VIII

3 Units  
Degree Applicable  
54 hours lab  
Prerequisite: Compliance with Work Experience/Internship regulations as designated in the College Catalog  
Continued exploration of kitchen and bath design concepts and presentation techniques. Portfolio pieces will be produced. Field trips may be required.

### ID 48 — Internship in Kitchen and Bath

1 to 3 Units  
Degree Applicable, CSU  
(May be taken for Pass/No Pass only)  
75 to 225 hours lab  
Prerequisite: Compliance with Work Experience/Internship regulations as designated in the College Catalog  
Corequisite: ID 40 (May have been taken previously)  
On-the-job experience in the interior design profession as a National Kitchen and Bath Association (NKBA) member work site, which relates to students’ classroom based learning. Placement is not guaranteed but assistance is provided by the interior design faculty. A minimum 75 paid clock hours or 60 non-paid clock hours per semester is required.

### ID 49 — Interior Design Specialized Studio

3 Units  
Degree Applicable  
36 hours lecture  
54 hours lab  
Prerequisite: ID 26  
Exploratory design experience to enhance interior design curriculum. The content of each course and the methods of study vary each semester and depends on the particular project under consideration. Students will explore advanced interior design concepts and presentation techniques. Portfolio pieces will be produced. Field trips may be required.

### ID 50 — Interior Design Specialized Studio II

3 Units  
Degree Applicable  
36 hours lecture  
54 hours lab  
Prerequisite: ID 26  
Further study and practice in the design of kitchens and baths. Emphasis on collaborative activities and practical use of the language. Extensive exposure to Italian culture. Grammar is presented in context.
## COURSE DESCRIPTIONS

### JAPANESE

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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### ITALIAN

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<tr>
<td>JOUR 102</td>
<td>Intermediate Newswriting</td>
<td>3</td>
<td>(C-ID JOUR 210)</td>
<td></td>
</tr>
</tbody>
</table>

### DEPARTMENT OF JOURNALISM

Practical experience in a newsroom lab setting in a variety of platforms. Use of computers, software, and emerging technologies including audio, video, web, and social media applications.

### DEPARTMENT OF JAPANESE

Elementary course for students without prior exposure to Japanese. Includes the study of essentials of pronunciation, vocabulary, Kanji characters, and Japanese culture. Grammar is presented in context.

### DEPARTMENT OF ITALIAN

Elementary course for students without prior exposure to Italian culture. Grammar is presented in context.

### DEPARTMENT OF JOURNALISM

Mass media and interrelationships with society, including history, structure, and trends. Additionally, the following topics will be covered as they pertain to the mass media: economics, law, ethics, technology, and such social issues as gender and cultural diversity.

### DEPARTMENT OF JAPANESE

Continuing intermediate study and review of grammar and vocabulary. Readings and discussions of Japanese cultural topics and introduction to Japanese literature.

### DEPARTMENT OF ITALIAN

Continued development of writing ability emphasizing development of thought through Kanji, Hiragana and Katakana. Additional development of cultural application of Japanese.
<table>
<thead>
<tr>
<th>Course Code</th>
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</tr>
</thead>
<tbody>
<tr>
<td>JOUR 107</td>
<td>Race, Culture, Sex, and Mass Media Images</td>
<td>3</td>
<td>Degree Applicable, CSU (May be taken for option of letter grade or Pass/No Pass) 54 hours lecture. Prerequisite: Eligibility for ENGL 1A. Role of mass media and advertising in the integration of minorities, cultures, women, and lesbians, gays-bisexuals, and transgenders LGBT) into American society. Examines how the mass media impacts public attitudes.</td>
</tr>
<tr>
<td>JOUR 108</td>
<td>Introduction to Public Relations</td>
<td>3</td>
<td>Degree Applicable, CSU (May be taken for option of letter grade or Pass/No Pass) 54 hours lecture. Prerequisite: JOUR 101. Theory, principles and professional practice of public relations. Concepts of planning and executing effective communication strategies including writing news releases and press pieces, and writing for and distribution through traditional, online and social media outlets, for any organization.</td>
</tr>
<tr>
<td>JOUR 109</td>
<td>Public Relations Internship</td>
<td>3</td>
<td>Degree Applicable (May be taken for option of letter grade or Pass/No Pass) 225 hours lab. Advisory: JOUR 108 or JOUR 8. Field work in public relations. A minimum of 75 paid or 60 non-paid clock hours per semester of supervised work is required for each unit of credit. It is recommended that the hours per week be equally distributed throughout the semester. Students who repeat this course will improve skills through further instruction and practice.</td>
</tr>
<tr>
<td>JOUR 110</td>
<td>Magazine Writing and Production</td>
<td>3</td>
<td>Degree Applicable (May be taken for option of letter grade or Pass/No Pass) 36 hours lecture. 54 hours lab. Advisory: JOUR 101. Writing and production of a student-run magazine. Artistic design, harmony, creativity and layout are stressed. Writing and editing magazine features, designing pages, selecting photographs and illustrations, preparing them for production, working under deadlines and other aspects of the magazine business are included.</td>
</tr>
<tr>
<td>JOUR 111</td>
<td>Writing Broadcast and Web News</td>
<td>3</td>
<td>Degree Applicable, CSU (May be taken for option of letter grade or Pass/No Pass) 54 hours lecture. Prerequisite: Eligibility for ENGL 1A. News gathering and writing for radio, television and the Web. News cast planning, story organization, and functions of a broadcast and multimedia newsroom are explored. Lecture and discussion of issues facing broadcast journalists in a new media environment will include ethics, law, and emerging technologies along with shooting video, recording audio, and editing video and audio. Opportunities to contribute to the campus student media.</td>
</tr>
<tr>
<td>JOUR 112</td>
<td>Work Experience in Journalism</td>
<td>3-4</td>
<td>Degree Applicable (Not Degree Applicable) (May be taken for option of letter grade or Pass/No Pass) 225 to 300 hours lab. Prerequisite: Compliance with Work Experience regulations as designated in the College Catalog. JOUR 101 or JOUR 1A and ENGL 1A. This course is designed to provide majors with actual on-the-job experience in an approved work station which is related to classroom instruction. A minimum of 75 paid or 60 non-paid clock hours per semester of supervised work is required for each unit of credit. It is recommended that the hours per week be equally distributed throughout the semester. Students who repeat this course will improve skills through further instruction and practice.</td>
</tr>
<tr>
<td>JOUR 113</td>
<td>Student News Media Staff</td>
<td>3</td>
<td>Degree Applicable, CSU (C-ID JOUR 130) (May be taken for option of letter grade or Pass/No Pass) 18 hours lecture. 108 hours lab. Prerequisite: JOUR 101. Newsroom lab setting writing and producing the college student news publications. Researching, writing and editing articles for both publications; photography, videography, and multimedia to create stories and images for print, web and broadcast; layout, design and graphic illustrations. Basic fundamentals of journalism law and ethics.</td>
</tr>
<tr>
<td>JOUR 115</td>
<td>Student News Media Editing Staff</td>
<td>3</td>
<td>Degree Applicable, CSU (C-ID JOUR 131) (May be taken for option of letter grade or Pass/No Pass) 18 hours lecture. 108 hours lab. Prerequisite: JOUR 114. Management and leadership involvement in writing and producing the college student print publications. Researching, writing and editing articles for both publications; photography, videography, multimedia, and emerging new technologies to create stories and images for print, web and broadcast; art direction, layout, design and graphic illustrations. Journalism law, copyright and ethics.</td>
</tr>
<tr>
<td>JOUR 116</td>
<td>Multimedia Storytelling</td>
<td>3</td>
<td>Degree Applicable, CSU (C-ID JOUR 120) (May be taken for option of letter grade or Pass/No Pass) 36 hours lecture. 54 hours lab. Prerequisite: Eligibility for ENGL 1A. Multimedia storytelling with a journalism emphasis. Techniques explored include the use of video, photos, audio and text to convey interactive news and feature stories for online publishing. Cultivates skills in interviewing, sourcing and information, gathering content using photographic, audio and video recording equipment.</td>
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</tbody>
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### KINESIOLOGY: ADAPTIVE

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>KINL 2</td>
<td>Physical Fitness for the Physically Limited</td>
<td>.5-.1</td>
<td>Degree Applicable, CSU, UC (May be taken for option of letter grade or Pass/No Pass) 36 to 54 hours activity. A modified physical fitness conditioning program incorporating cardiovascular training exercises, specifically designed for students with a disability or limitation. Students who repeat this course will improve their fitness level through further instruction and practice.</td>
</tr>
<tr>
<td>KINL 14</td>
<td>Activity Programs for the Physically Limited</td>
<td>.5-1</td>
<td>Degree Applicable, CSU, UC (May be taken for option of letter grade or Pass/No Pass) 36 to 54 hours activity. Designed for students with a disability or limitation who require special assistance or equipment to participate in leisure activities. Course content will vary each semester in order to meet current students’ needs.</td>
</tr>
<tr>
<td>KINL 18</td>
<td>Weight Training for the Physically Limited</td>
<td>.5-1</td>
<td>Degree Applicable, CSU, UC (May be taken for option of letter grade or Pass/No Pass) 36 to 54 hours activity. Designed to assist students with a disability or limitation develop strength, endurance, flexibility, and physical fitness through weight training.</td>
</tr>
</tbody>
</table>

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### KINESIOLOGY: AQUATICS

<table>
<thead>
<tr>
<th>Course Code</th>
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</tr>
</thead>
<tbody>
<tr>
<td>KINA 8A</td>
<td>Swimming - Beginning</td>
<td>.5</td>
<td>Degree Applicable, CSU, UC (May be taken for option of letter grade or Pass/No Pass) 36 to 54 hours activity. Designed to teach basic swimming strokes and aquatic skills to individuals with little or no swimming ability.</td>
</tr>
</tbody>
</table>
### KINESIOLOGY: ATHLETICS

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>KINX 6</td>
<td>Baseball - Men</td>
<td>0.5</td>
<td>Intended for Men’s Intercollegiate Baseball Team candidates to provide instruction in the components of training and conditioning related to the sport of baseball. Students who repeat this course will improve skills through further instruction and practice.</td>
</tr>
<tr>
<td>KINX 8</td>
<td>Basketball - Men</td>
<td>0.5</td>
<td>Intended for Men’s Intercollegiate Basketball Team candidates to provide instruction in the components of training and conditioning related to the sport of basketball. Students who repeat this course will improve skills through further instruction and practice.</td>
</tr>
<tr>
<td>KINX 9</td>
<td>Conditioning for Sports</td>
<td>0.5</td>
<td>Conditioning course for athletes to develop muscular strength and endurance, flexibility, core training skills, and cardiorespiratory fitness.</td>
</tr>
<tr>
<td>KINX 10</td>
<td>Basketball - Women</td>
<td>0.5</td>
<td>Intended for Women’s Intercollegiate Basketball Team candidates to provide instruction in the components of training and conditioning related to the sport of basketball. Students who repeat this course will improve skills through further instruction and practice.</td>
</tr>
<tr>
<td>KINX 11</td>
<td>Cross Country - Men</td>
<td>0.5</td>
<td>Intended for Men’s Intercollegiate Cross Country Team candidates to provide instruction in the components of training and conditioning related to the sport of cross country. Students who repeat this course will improve skills through further instruction and practice.</td>
</tr>
<tr>
<td>KINX 19</td>
<td>Cross Country - Women</td>
<td>0.5</td>
<td>Intended for Women’s Intercollegiate Cross Country Team candidates to provide instruction in the components of training and conditioning related to the sport of cross country. Students who repeat this course will improve skills through further instruction and practice.</td>
</tr>
<tr>
<td>KINX 24</td>
<td>Soccer - Men</td>
<td>0.5</td>
<td>Intended for Men’s Intercollegiate Soccer Team candidates to provide instruction in the components of training and conditioning related to the sport of soccer. Students who repeat this course will improve skills through further instruction and practice.</td>
</tr>
</tbody>
</table>

### Degree Applicability
- Degree Applicable, CSU, UC

### Additional Information
- Prerequisite: Demonstrate proficiency equivalent to Red Cross Level IV Swimming Test.
- Designed to offer aquatic techniques of an advanced level and to refine the skill of the competent swimmer.
- Fundamental water polo skills including conditioning, drills, and game situations. Students who repeat this course will improve skills through further instruction and practice.
- Student must be able to perform front crawl 50 yards. Designed to improve and maintain aquatic fitness. Emphasis on building strength, endurance and cardiovascular fitness. Students who repeat this course will improve skills through further instruction and practice.

### Course Descriptions
- **Kina 10** — Cross Country - Men: 0.5 Units
  - Degree Applicable, CSU, UC
  - Intended for Men's Intercollegiate Cross Country Team candidates to provide instruction in the components of training and conditioning related to the sport of cross country. Students who repeat this course will improve skills through further instruction and practice.
- **Kina 19** — Cross Country - Women: 0.5 Units
  - Degree Applicable, CSU, UC
  - Intended for Women's Intercollegiate Cross Country Team candidates to provide instruction in the components of training and conditioning related to the sport of cross country. Students who repeat this course will improve skills through further instruction and practice.
- **Kina 24** — Soccer - Men: 0.5 Units
  - Degree Applicable, CSU, UC
  - Intended for Men's Intercollegiate Soccer Team candidates to provide instruction in the components of training and conditioning related to the sport of soccer. Students who repeat this course will improve skills through further instruction and practice.
- **Kina 8** — Basketball - Men: 0.5 Units
  - Degree Applicable, CSU, UC
  - 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.
- **Kina 9** — Conditioning for Sports: 0.5 Units
  - Degree Applicable, CSU, UC
  - Conditioning course for athletes to develop muscular strength and endurance, flexibility, core training skills, and cardiorespiratory fitness.
- **Kina 10** — Basketball - Women: 0.5 Units
  - Degree Applicable, CSU, UC
  - 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.
- **Kina 11** — Cross Country - Men: 0.5 Units
  - Degree Applicable, CSU, UC
  - Intended for Men's Intercollegiate Cross Country Team candidates to provide instruction in the components of training and conditioning related to the sport of cross country. Students who repeat this course will improve skills through further instruction and practice.
- **Kina 19** — Cross Country - Women: 0.5 Units
  - Degree Applicable, CSU, UC
  - Intended for Women's Intercollegiate Cross Country Team candidates to provide instruction in the components of training and conditioning related to the sport of cross country. Students who repeat this course will improve skills through further instruction and practice.
- **Kina 24** — Soccer - Men: 0.5 Units
  - Degree Applicable, CSU, UC
  - Intended for Men's Intercollegiate Soccer Team candidates to provide instruction in the components of training and conditioning related to the sport of soccer. Students who repeat this course will improve skills through further instruction and practice.
Course Descriptions

KINX 25 — Soccer - Women .5 to 3.5 Units
Degree Applicable, CSU, UC
(May be taken four times for credit)
(May be taken for option of letter grade or Pass/No Pass)
36 to 180 hours activity
Intended for Women's Intercollegiate Soccer Team candidates to provide instruction in the components of training and conditioning related to the sport of soccer. Students who repeat this course will improve skills through further instruction and practice.

KINX 26 — Softball - Women .5 to 3.5 Units
Degree Applicable, CSU, UC
(May be taken four times for credit)
(May be taken for option of letter grade or Pass/No Pass)
36 to 180 hours activity
Intended for Women's Softball Team candidates to provide 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.

KINX 28 — Swimming - Men .5 to 3.5 Units
Degree Applicable, CSU, UC
(May be taken four times for credit)
(May be taken for option of letter grade or Pass/No Pass)
36 to 180 hours activity
Intended for the Men's Intercollegiate Swim Team candidates to provide instruction in the components of training and conditioning related to the sport of swimming. Students who repeat this course will improve skills through further instruction and practice.

KINX 30 — Swimming - Women .5 to 3.5 Units
Degree Applicable, CSU, UC
(May be taken four times for credit)
(May be taken for option of letter grade or Pass/No Pass)
36 to 180 hours activity
Intended for Women's Intercollegiate Swim Team candidates to provide instruction in the components of training and conditioning related to the sport of swimming. Students who repeat this course will improve skills through further instruction and practice.

KINX 32 — Tennis - Men .5 to 3.5 Units
Degree Applicable, CSU, UC
(May be taken four times for credit)
(May be taken for option of letter grade or Pass/No Pass)
36 to 180 hours activity
Intended for Men's Intercollegiate Tennis Team candidates to provide instruction in the components of training and conditioning related to the sport of tennis. Students who repeat this course will improve skills through further instruction and practice.

KINX 34 — Tennis - Women .5 to 3.5 Units
Degree Applicable, CSU, UC
(May be taken four times for credit)
(May be taken for option of letter grade or Pass/No Pass)
36 to 180 hours activity
Intended for Women's Intercollegiate Tennis Team candidates to provide instruction in the sport of tennis. Students who repeat this course will improve skills through further instruction and practice.

KINX 36 — Track and Field - Men .5 to 3.5 Units
Degree Applicable, CSU, UC
(May be taken four times for credit)
(May be taken for option of letter grade or Pass/No Pass)
36 to 180 hours activity
Intended for Men's Intercollegiate Track and Field team candidates to provide instruction in the components of training and conditioning related to the sport of track and field. Students who repeat this course will improve skills through further instruction and practice.

KINX 38 — Track and Field - Women .5 to 3.5 Units
Degree Applicable, CSU, UC
(May be taken four times for credit)
(May be taken for option of letter grade or Pass/No Pass)
36 to 180 hours activity
Intended for Women's Intercollegiate Track and Field Team candidates to provide instruction in the components of training and conditioning related to the sport of track and field. Students who repeat this course will improve skills through further instruction and practice.

KINX 42 — Volleyball - Women .5 to 3.5 Units
Degree Applicable, CSU, UC
(May be taken four times for credit)
(May be taken for option of letter grade or Pass/No Pass)
36 to 180 hours activity
Intended for Women's Intercollegiate Volleyball Team candidates to provide instruction in the components of training and conditioning related to the sport of volleyball. Students who repeat this course will improve skills through further instruction and practice.

KINX 44 — Water Polo - Men .5 to 3.5 Units
Degree Applicable, CSU, UC
(May be taken four times for credit)
(May be taken for option of letter grade or Pass/No Pass)
36 to 180 hours activity
Intended for Men's Intercollegiate Water Polo Team candidates to provide instruction in the components of training and conditioning related to the sport of water polo. Students who repeat this course will improve skills through further instruction and practice.

KINX 46 — Volleyball - Men .5 to 3.5 Units
Degree Applicable, CSU, UC
(May be taken four times for credit)
(May be taken for option of letter grade or Pass/No Pass)
36 to 180 hours activity
Intended for Men's Intercollegiate Volleyball Team candidates to provide instruction in the components of training and conditioning related to the sport of volleyball. Students who repeat this course will improve skills through further instruction and practice.

KINX 48 — Water Polo - Women .5 to 3.5 Units
Degree Applicable, CSU, UC
(May be taken four times for credit)
(May be taken for option of letter grade or Pass/No Pass)
36 to 180 hours activity
Intended for Women's Intercollegiate Water Polo Team candidates to provide instruction in the components of training and conditioning related to the sport of water polo. Students who repeat this course will improve skills through further instruction and practice.

KINX 50 — Wrestling - Men .5 to 3.5 Units
Degree Applicable, CSU, UC
(May be taken four times for credit)
(May be taken for option of letter grade or Pass/No Pass)
36 to 180 hours activity
Intended for Men's Intercollegiate Wrestling Team candidates to provide instruction in the components and conditioning related to the sport of wrestling. Students who repeat this course will improve through further instruction and practice.

KINX 52 — Wrestling - Women .5 to 3.5 Units
Degree Applicable, CSU, UC
(May be taken four times for credit)
(May be taken for option of letter grade or Pass/No Pass)
36 to 180 hours activity
Intended for Women's Intercollegiate Wrestling Team candidates to provide instruction in the components and conditioning related to the sport of wrestling. Students who repeat this course will improve through further instruction and practice.

KINX 88 — Pre-Season Athletics .5 to 3.5 Units
Degree Applicable, CSU, UC
(May be taken four times for credit)
(May be taken for option of letter grade or Pass/No Pass)
36 to 180 hours lab
Pre-season intercollegiate athletics. Enrollment is limited to athletic team candidates and includes, sport specific aerobic and anaerobic conditioning, drill technique, strength conditioning, speed development and game play. Students who repeat this course will improve skills and fitness through further instruction and practice.

KINX 89 — Off-Season Athletics .5 to 3.5 Units
Degree Applicable, CSU, UC
(May be taken four times for credit)
(May be taken for option of letter grade or Pass/No Pass)
36 to 180 hours lab
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.
KINESIOLOGY: FITNESS

**KINF 4 — Cardiovascular Conditioning** .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 fitness levels through cardiovascular activities.

**KINF 6A — Physical Fitness - Beginning** .5 to 1 Unit
Degree Applicable, CSU, UC
(May be taken for option of letter grade or Pass/No Pass)
36 to 54 hours activity
Presents beginning components of physical fitness. Students identify individual fitness level, participate in activities designed to improve overall fitness and use cardiovascular equipment to achieve fitness goals.

**KINF 6B — Physical Fitness - Intermediate** .5 to 1 Unit
Degree Applicable, CSU, UC
(May be taken for option of letter grade or Pass/No Pass)
36 to 36 hours activity
Develops intermediate levels of physical fitness. Students analyze individual fitness level and participate in activities designed to improve overall fitness.

**KINF 6C — Physical Fitness - Advanced** .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
Advanced components of physical fitness. Students integrate fitness components into a personal fitness program and participate in activities designed to improve overall fitness.

**KINF 9 — Conditioning for Sports** .5 to 1 Unit
Degree Applicable, CSU, UC
(May be taken for option of letter grade or Pass/No Pass)
36 to 54 hours activity
A conditioning course for students and athletes to develop muscular strength and endurance, flexibility, core training skills, and cardiorespiratory fitness. Students who repeat this course will improve skills through further instruction and practice.

**KINF 10 — Weight Training** .5 to 1 Unit
Degree Applicable, CSU, UC
(May be taken for option of letter grade or Pass/No Pass)
36 to 54 hours activity
Muscular conditioning program using machines and free weights.

**KINF 10A — Weight Training - Beginning** .5 to 2 Units
Degree Applicable, CSU
(May be taken for option of letter grade or Pass/No Pass)
Muscular conditioning program using machines and free weights for students with little or no prior experience. Students will develop a personal fitness program to align with personal fitness goals.

**KINF 10B — Weight Training - Intermediate** .5 to 2 Units
Degree Applicable, CSU
(May be taken for option of letter grade or Pass/No Pass)
Muscular conditioning using machines and free weights for students with prior experience. Students will develop a personal program identifying baseline and improvements across the course.

**KINF 19 — Strength Training** 2 Units
Degree Applicable, CSU, UC
(May be taken for option of letter grade or Pass/No Pass)
108 hours activity
Designed for students concentrating on strength development through various types of exercise.

**KINF 25 — Core Performance and Foundation Movement** 1 to 2 Units
Degree Applicable, CSU, UC
(May be taken for option of letter grade or Pass/No Pass)
54 to 108 hours activity
Body core training and foundation movement for students interested in improving their fitness level. Training and strengthening of the muscles that stabilize, align, and move the trunk.

**KINF 34 — Cardiorespiratory Training** .5 to 2 Units
Degree Applicable, CSU, UC
(May be taken for option of letter grade or Pass/No Pass)
36 to 108 hours activity
Individualized exercise programs designed to improve cardiorespiratory performance.

**KINF 34A — Cardiorespiratory Training Beginning** .5 to 2 Units
Degree Applicable, CSU, UC
(May be taken for option of letter grade or Pass/No Pass)
36 to 108 hours activity
Beginning individualized cardiovascular exercise for students needing to start fitness training at a fundamental or low level of intensity. Utilizes stationary bikes, treadmills, elliptical trainers, step climbers and/or rowing machines as training modalities. This course will not challenge students with above average fitness abilities.

**KINF 36 — Circuit Training** .5 to 2 Units
Degree Applicable, CSU, UC
(May be taken for option of letter grade or Pass/No Pass)
36 to 108 hours activity
Muscular strength and endurance exercise on circuit training equipment.

**KINF 36A — Circuit Training Beginning** .5 to 2 Units
Degree Applicable, CSU, UC
(May be taken for option of letter grade or Pass/No Pass)
36 to 108 hours lab
Beginning Circuit Training for individuals with little or no weight training experience. Course is for students needing to begin at a fundamental or low level intensity of strength training. Utilizes circuit training machines, floor core work, and light dumbbells. This course will not challenge students with above average fitness abilities.

**KINF 36B — Circuit Training Intermediate** .5 to 2 Units
Degree Applicable, CSU, UC
(May be taken for option of letter grade or Pass/No Pass)
36 to 108 hours lab
Individualized circuit training for students with previous strength training experience and capable of performing moderate to high levels of strength development on circuit training equipment. Students need to be familiar with strength and repetition ratios. Utilizes circuit training machines, floor core work, medicine balls, exercise balls, Bosu Balance Trainer and dumbbells.

**KINF 38 — Aerobics** .5 to 2 Units
Degree Applicable, CSU, UC
(May be taken for option of letter grade or Pass/No Pass)
36 to 108 hours activity
Group aerobic exercise to improve cardiorespiratory efficiency. Students who repeat this course will improve skills through further instruction and practice.
KINF 38A — Aerobics-Beginning .5 to 1 Unit
Degree Applicable, CSU, UC
(May be taken for option of letter grade or Pass/No Pass)
36 to 54 hours lab
Beginning group exercise to improve cardiovascular fitness using aerobic activity. This course is designed for students with little or no previous group fitness experience and have a need to start at a fundamental level of exercise and lower exercise intensity levels. This course will not challenge students with average to above average fitness abilities.

KINF 38B — 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 lab
Group aerobic exercise for students with experience in group fitness and able to exercise at moderate levels of fitness and mid to high target heart rate training zones. Class includes various types of high and low impact aerobic exercises including choreographed movements to music within a group fitness setting. Endurance strength training includes the use of elastic bands, light hand held weights, core exercises and weighted bars.

KINF 38C — Advanced Aerobics .5 to 1 Unit
Degree Applicable, CSU, UC
(May be taken for option of letter grade or Pass/No Pass)
71 hours activity
Advanced principles of exercise used to enhance fitness performance in the fields of law enforcement and fire technology. This course will not challenge students with average to above average fitness abilities.

KINF 51 — Agility Test Preparation for Administration of Justice, Fire Technology, and Forestry
Degree Applicable, CSU
(May be taken for option of letter grade or Pass/No Pass)
71 hours activity
A training program directed toward physical agility testing approximating the testing process required by various law enforcement and fire agencies.

KINF 51A — Agility Test Preparation Law and Fire .5 to 1 Unit
Degree Applicable, CSU
(May be taken for option of letter grade or Pass/No Pass)
71 hours lab
Physical agility skills for individuals with little or no agility training. Designed specifically for those interested in law enforcement and fire technology. There may be off-campus assignments.

KINF 51B — Agility Test Preparation Law and Fire .5 to 1 Unit
Degree Applicable, CSU
(May be taken for option of letter grade or Pass/No Pass)
71 hours lab
Prepares the Basic Fire Academy student for the physical demands of the fire service. Through a supervised individualized training program, the student acquires cardiovascular endurance, flexibility and strength.

KINF 52A — Fitness and Conditioning for Law and Fire .5 to 1 Unit
Degree Applicable, CSU
(May be taken for option of letter grade or Pass/No Pass)
71 hours activity
A conditioning program to maintain strength, agility, cardiovascular fitness and flexibility necessary to perform the tasks required of personnel in fields of law enforcement, fire science and forestry.

KINF 52B — Fitness and Conditioning for Law and Fire .5 to 1 Unit
Degree Applicable, CSU
(May be taken for option of letter grade or Pass/No Pass)
71 hours activity
Advisory: KINF 52A Principles of exercise used to enhance fitness performance in the fields of law enforcement and fire technology.

KINF 52C — Physical Training for the Basic Fire Academy .5 to 1 Unit
Degree Applicable, CSU
(May be taken for option of letter grade or Pass/No Pass)
133 hours activity
Prepares the Basic Fire Academy student for the physical demands of the fire service. Through a supervised individualized training program, the student acquires cardiovascular endurance, flexibility and strength.

KINF 53 — Physical Training for the Basic Fire Academy 2.5 Units
Degree Applicable, CSU
(May be taken for option of letter grade or Pass/No Pass)
36 to 54 hours lab
Prepares the student for the physical demands of the fire service. Through a supervised individualized training program, the student acquires cardiovascular endurance, flexibility and strength.

KINI 18A — Golf - Beginning .5 to 1 Unit
Degree Applicable, CSU, UC
(May be taken for option of letter grade or Pass/No Pass)
36 to 54 hours activity
Golf fundamentals with an emphasis on technique, strategy, and rules.

KINI 18B — Golf - Intermediate .5 to 1 Unit
Degree Applicable, CSU, UC
(May be taken for option of letter grade or Pass/No Pass)
36 to 54 hours activity
Intermediate badminton techniques, including singles and doubles tournament play.

KINI 18C — Golf - Advanced .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
Advanced badminton techniques, including singles and doubles tournament play.

KINI 25 — Mixed Martial Arts .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
The sport of mixed martial arts. An integration of striking and close-combat martial arts.
Course Descriptions

**KINI 29 — Self Defense/Martial Arts**  .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  
Basic concepts of self-defense and martial arts. Covers techniques in three ranges of combat: grappling, kick/punch, and weapons range.

**KINI 30A — Filipino Martial Arts - Beginning**  .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  
The Filipino martial arts of Esgrima and Arnis. Basic weapons training for defense in armed and unarmed scenarios.

**KINI 30B — Filipino Martial Arts - Intermediate**  .5 to 1 Unit  
Degree Applicable, CSU, UC  
(May be taken for option of letter grade or Pass/No Pass)  
36 to 54 hours activity  
The Filipino martial arts of Esgrima and Arnis. Intermediate weapons training for defense in armed and unarmed scenarios.

**KINI 31A — Jiu Jitsu - Beginning**  .5 to 1 Unit  
Degree Applicable, CSU, UC  
(May be taken for option of letter grade or Pass/No Pass)  
36 to 54 hours activity  
Fundamentals of Brazilian Jiu Jitsu. Basic positions, breaks, training techniques, strategy, finishing holds, competition, history, and philosophy. Students are required to provide their own Judo/Jiujitsu gi uniform.

**KINI 31B — Jiu Jitsu - Intermediate**  .5 to 1 Unit  
Degree Applicable, CSU, UC  
(May be taken for option of letter grade or Pass/No Pass)  
36 to 54 hours activity  
Intermediate Brazilian Jiu Jitsu. Transitioning from positions, countering submissions and finishing holds, application of strategy, competition, and philosophy. Students are required to provide their own Judo/Jiujitsu gi uniform.

**KINI 33 — Kickboxing**  .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  
Prepares the martial sport of kickboxing. Includes techniques for offense and defense, cardiovascular endurance, strategy, and training modes.

**KINI 34 — Women’s Self Defense**  .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  
Techniques for personal protection and safety with emphasis on defensive tactics for women.

**KINI 35 — Tai Chi Chuan - Beginning**  .5 to 1 Unit  
Degree Applicable, CSU, UC  
(May be taken for option of letter grade or Pass/No Pass)  
36 to 54 hours activity  
Fundamentals of Tai Chi Chuan as a martial art exercise for health and fitness, meditation, relaxation and self defense. Basic therapeutic exercises in the Tai Chi Chuan format will be presented.

**KINI 36 — Tai Chi Chuan - Intermediate**  .5 to 1 Unit  
Degree Applicable, CSU, UC  
(May be taken for option of letter grade or Pass/No Pass)  
36 to 54 hours activity  
Intermediate Tai Chi Chuan fundamentals and principles including instruction in a traditional long form.

**KINI 37A — Tai Chi Chuan - Beginning**  .5 to 1 Unit  
Degree Applicable, CSU, UC  
(May be taken for option of letter grade or Pass/No Pass)  
36 to 54 hours activity  
Instruction and practice for the experienced Tai Chi Chuan practitioner. Emphasis will be on the sword form.

**KINI 37B — Tai Chi Chuan - Intermediate**  .5 to 1 Unit  
Degree Applicable, CSU, UC  
(May be taken for option of letter grade or Pass/No Pass)  
36 to 54 hours activity  
Intermediate Tai Chi Chuan fundamentals and principles including instruction in a traditional long form.

**KINI 37C — Tai Chi Chuan - Advanced**  .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  
Advanced Tai Chi Chuan techniques and principles for the individual who has previous experience and instruction in Tai Chi Chuan.

**KINI 37D — Tai Chi Chuan - Advanced**  .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  
Advanced Tai Chi Chuan techniques and principles for the individual who has previous experience and instruction in Tai Chi Chuan.

**KINI 38 — Wrestling**  .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  
Wrestling skills, fundamentals and match competition.

**KINI 39 — Yoga**  .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  
Yoga instruction with emphasis on yoga postures, breathing techniques, relaxation strategies and philosophy.

**KINI 40A — Tennis - Beginning**  .5 to 1 Unit  
Degree Applicable, CSU, UC  
(May be taken for option of letter grade or Pass/No Pass)  
36 to 54 hours activity  
Basic skills, fundamentals, rules and strategies for team play in basketball.

**KINI 40B — Tennis - Intermediate**  .5 to 1 Unit  
Degree Applicable, CSU, UC  
(May be taken for option of letter grade or Pass/No Pass)  
36 to 54 hours activity  
Advanced tennis techniques and strategies for the experienced tennis player.

**KINI 40C — Tennis - Advanced**  .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  
Advanced tennis techniques and strategies for the experienced tennis player.

**KINI 41 — Iyengar Yoga**  .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  
Fundamentals of Iyengar yoga. Basic postures, alignments, and therapeutic exercises in the Iyengar yoga format will be presented.

**KINI 42 — Yoga**  .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  
Yoga instruction with emphasis on yoga postures, breathing techniques, relaxation strategies and philosophy.

**KINI 43 — Tai Chi Chuan - Advanced**  .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  
Advanced Tai Chi Chuan techniques and principles for the individual who has previous experience and instruction in Tai Chi Chuan.

**KINI 44 — Tai Chi Chuan - Advanced**  .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  
Advanced Tai Chi Chuan techniques and principles for the individual who has previous experience and instruction in Tai Chi Chuan.

**KINI 45 — Tai Chi Chuan - Advanced**  .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  
Advanced Tai Chi Chuan techniques and principles for the individual who has previous experience and instruction in Tai Chi Chuan.

**KINI 46 — Tai Chi Chuan - Advanced**  .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  
Advanced Tai Chi Chuan techniques and principles for the individual who has previous experience and instruction in Tai Chi Chuan.

**KINI 47 — Tai Chi Chuan - Advanced**  .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  
Advanced Tai Chi Chuan techniques and principles for the individual who has previous experience and instruction in Tai Chi Chuan.

**KINI 48 — Tai Chi Chuan - Advanced**  .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  
Advanced Tai Chi Chuan techniques and principles for the individual who has previous experience and instruction in Tai Chi Chuan.

**KINI 49 — Tai Chi Chuan - Advanced**  .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  
Advanced Tai Chi Chuan techniques and principles for the individual who has previous experience and instruction in Tai Chi Chuan.

**KINI 50A — Yoga**  .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  
Yoga instruction with emphasis on yoga postures, breathing techniques, relaxation strategies and philosophy.

**KINI 50B — Yoga**  .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  
Yoga instruction with emphasis on yoga postures, breathing techniques, relaxation strategies and philosophy.

**KINI 50C — Yoga**  .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  
Yoga instruction with emphasis on yoga postures, breathing techniques, relaxation strategies and philosophy.
## KIN 3 — First Aid and CPR

3 Units

Degree Applicable, CSU, UC

54 hours lecture

Advisory: Eligibility for ENGL 68

Training in caring for victims of injuries, sudden illness and other medical emergencies; includes Community CPR. Students who successfully pass all requirements will earn the appropriate American Red Cross First Aid Certificate and/or CPR Certificate.

### KIN 5 — Advanced First Aid/CPR/Emergency Response

3 Units

Degree Applicable, CSU

54 hours lecture

Advisory: Eligibility for ENGL 68

First responder training, training and certifications, including laboratory experience for developing the First Aid (FA) and CPR skills required by public safety personnel, athletic trainers, emergency response team members, flight attendants, coaches and nurses. Students who successfully pass all requirements will receive an American Red Cross (ARC) Certificate in Emergency Response and/or CPR for the Professional Rescuer.

## KIN 13 — Sports Officiating

3 Units

Degree Applicable, CSU, UC

54 hours lecture

Rules, regulations and career opportunities of various team and individual sports.

## KIN 15 — Administration of Fitness Programs

2 Units

Degree Applicable, CSU

(May be taken for option of letter grade or Pass/No Pass)

36 hours lecture

Leadership training and administrative skills related to fitness specialists, personal trainers and physical educators. Current issues, curriculum topics and practical skills related to careers in fitness and physical education.

## KIN 16 — Softball

.5 to 1 Unit

Degree Applicable, CSU, UC

(May be taken for option of letter grade or Pass/No Pass)

36 to 54 hours activity

Designed for individuals with previous experience in techniques and strategies of softball.

## KIN 19 — Introduction to Care/Prevention of Activity/Sports-Related Injuries

3 Units

Degree Applicable, CSU, UC

54 hours lecture

Kinesiology as a profession and academic discipline. Explores sub-disciplines, opportunities in the field, philosophy, scientific basis, and analysis.

## KIN 24 — Applied Kinesiology

2 Units

Degree Applicable, CSU

(May be taken for option of letter grade or Pass/No Pass)

36 hours lecture

The study of movement as it relates to exercise and the interrelationships of body segments involved in human movement activity, actions of joints, nerves and muscle exercise.

### KIN 24A — Volleyball - Beginning

.5 to 1 Unit

Degree Applicable, CSU, UC

(May be taken for option of letter grade or Pass/No Pass)

36 to 54 hours activity

Techniques and strategies of volleyball including passing, setting, hitting, and serving.

### KIN 24B — Volleyball - Intermediate

.5 to 1 Unit

Degree Applicable, CSU, UC

(May be taken for option of letter grade or Pass/No Pass)

36 to 54 hours activity

Designed for individuals with previous experience in techniques and strategies of volleyball.

### KIN 24C — Volleyball - Advanced

.5 to 1 Unit

Degree Applicable, CSU, UC

(May be taken for option of letter grade or Pass/No Pass)

36 to 54 hours activity

Designed for individuals with previous experience in advanced techniques and strategies of volleyball.

## KIN 25 — Applied Kinesiology

2 Units

Degree Applicable, CSU

(May be taken for option of letter grade or Pass/No Pass)

54 hours lecture

Principles and techniques of teaching weight training. Includes muscle structure and function, training sequences, free weight and machine equipment, safety factors, including contraindications for exercise.

## KIN 26 — Theory of Coaching

3 Units

Degree Applicable, CSU

54 hours lecture

Coaching issues and problems facing the coach today and includes the philosophy, theory, and principles of developing and maintaining an athletic program. Designed for coaches at varying levels from youth league to high school varsity.

## KIN 28 — Physiology of Exercise for Fitness

3 Units

Degree Applicable, CSU, UC

54 hours lecture

Theory of basic physiological concepts as they pertain to exercise training and the prescription of individual fitness programs.

## KIN 30 — Administration of Fitness Programs

2 Units

Degree Applicable, CSU

(May be taken for option of letter grade or Pass/No Pass)

36 hours lecture

Leadership training and administrative skills related to fitness specialists, personal trainers and physical educators. Current issues, curriculum topics and practical skills related to careers in fitness and physical education.

## KIN 32 — Nutrition for Fitness and Performance

3 Units

Degree Applicable, CSU

54 hours lecture

Survey and analysis of the components of fitness and wellness. Effects of fitness on optimal health, well-being, concepts of human movement, fitness program design, stress management, nutrition and weight maintenance.

## KIN 33 — Physiology of Exercise for Fitness

3 Units

Degree Applicable, CSU, UC

54 hours lecture

Theory of basic physiological concepts as they pertain to exercise training and the prescription of individual fitness programs.

## KIN 34 — Fitness for Living

3 Units

Degree Applicable, CSU, UC

54 hours lecture

Survey and analysis of the components of fitness and wellness. Effects of fitness on optimal health, well-being, concepts of human movement, fitness program design, stress management, nutrition and weight maintenance.
**LATIN**

**LATN 1 — Elementary Latin** 4 Units Degree Applicable, CSU, UC
(May be taken for option of letter grade or Pass/No Pass)
72 hours lecture
Advisory: Eligibility for READ 90 or eligibility for AMLA 33R
Emphasizes the ability to read basic Latin as it was written during the early, classical, and post-classical periods. Includes the study of vocabulary, grammar, Roman culture, and the history of the Latin language. For students with little or no prior experience in Latin.

**LATN 2 — Continuing Elementary Latin** 4 Units Degree Applicable, CSU, UC
(May be taken for option of letter grade or Pass/No Pass)
72 hours lecture
Prerequisite: LATN 1
Advisory: Eligibility for READ 90 or eligibility for AMLA 33R
Second semester of coursework for students with prior coursework in Latin. Development of vocabulary, grammar, and reading. Explores Roman history and culture.

**LEAD 55 — Exploring Leadership** 3 Units Degree Applicable, CSU
54 hours lecture
Explores leadership theories and models, values and beliefs. Develops a personal philosophy of leadership that includes an understanding of self, others and community. Prepares students for leadership roles in any environment including college life.

**LEARN 48 — Basic Math Skills Review** 3 Units Not Degree Applicable
150 hours lecture
Improves knowledge of basic math. Includes operations and applied problems in whole numbers, fractions, decimals, proportions, percentages, and integers. Covers math learning strategies such as organization and managing math anxiety.

**LEARN 49 — Math Skills Review** 3 Units Not Degree Applicable
150 hours lecture
Math fundamentals: adding, subtracting, multiplying and dividing whole numbers and adding, subtracting and multiplying decimals. Emphasis on math learning strategies such as organization and managing math anxiety.

**LEARN 62 — Skills Development Laboratory** 2 Units Not Degree Applicable
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).

**LEARN 81 — Improving Writing** 3 Units Not Degree Applicable
54 hours lecture
Assist students who wish to improve prewriting, writing, editing, and revising skills. Provide instruction in content and structure of sentences, paragraphs, and essays; emphasize development in writing through the integration of grammar and critical thinking.

**LEARNING COMMUNITIES**

**LCOM 90 — Learning Communities: Campus Connections** 1 Unit Degree Applicable
18 hours lecture
Analyzes connections between the individual and the campus. Focuses on the benefits of campus involvement in order to create student identity. Identifies connections between themes and topics of courses within a learning community. Explores problem based learning. Concurrent enrollment in a learning community is required. Field trips may be required.

**LCOM 100 — Learning Communities: Interdisciplinary Connection** 1 Unit Degree Applicable
18 hours lecture
Interprets the connections between real world problems, course content, and learning community themes. Synthesizes interdisciplinary connections utilizing problem-based learning within a learning community. Evaluates successful team selection based on specific criteria including leadership skills and interpersonal relationships to establish collective efficacy. Concurrent enrollment in a learning community is required. Field trips may be required.
LIBRARY AND INSTRUCTIONAL MEDIA

■ LIBR 1 — Information Resources and Research Methods 3 Units
  Degree Applicable, CSU, UC
  54 hours lecture
  Advisory: Eligibility for ENGL 68
  Research methods for academic research and critical thinking that support information competency. Includes finding, evaluating, and documenting information using traditional and electronic resources.

■ LIBR 1A — Introduction to Library Research 1 Unit
  Degree Applicable, CSU, UC
  18 hours lecture
  Advisory: Eligibility for ENGL 68
  Research strategies for academic research and critical thinking. Topics include search strategies, citation of sources, and use and evaluation of library resources.

MANUFACTURING TECHNOLOGY

■ MFG 10 — Mathematics and Blueprint Reading 3 Units
  Degree Applicable
  54 hours lecture
  Advisory: Eligibility for ENGL 68
  Applications of mathematical principles, including fractions, decimals, ratio/proportion, geometry and trigonometry to manufacturing problems and their solutions. Reading and interpreting part drawings, assembly drawings and sketches used in the manufacturing industry.

■ MFG 11 — Manufacturing Processes I 2 Units
  Degree Applicable, CSU
  18 hours lecture
  54 hours lab
  Manual and computerized manufacturing, tool nomenclature, and lathe and mills operations, computer numerical control (CNC) machinery, applications, and tooling.

■ MFG 12 — Manufacturing Processes II 2 Units
  Degree Applicable, CSU
  18 hours lecture
  54 hours lab
  Advisory: MFG 11
  Machine tool manufacturing process theory and practice in milling operations, tooling set up, indexing, metallurgy, heat treatment, precision grinding, and basic tool design with study and application of manufacturing process to computerized equipment.

■ MFG 38 — MasterCAM I 2 Units
  Degree Applicable, CSU
  18 hours lecture
  54 hours lab
  Use MasterCAM software to create wire-frame part geometry, add tool paths and create CNC code for CNC mills and CNC lathes.

■ MFG 38B — MasterCAM II 2 Units
  Degree Applicable, CSU
  18 hours lecture
  54 hours lab
  Advisory: MFG 38
  Use MasterCAM software to create three-dimensional wireframe and solid part geometry.

■ MFG 85 — Manual Computerized Numerical Control (CNC) Programming 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 set-up and operation of CNC equipment.

MATH 50 — Pre-Algebra 3 Units
  Not Degree Applicable
  54 hours lecture
  Prerequisite: LERN 49 or qualifying score on current department placement test
  Fundamentals of mathematics designed to ease the transition from arithmetic to algebra. Concepts, computational skills, thinking skills and problem-solving skills are balanced to build proficiency and mastery.

■ MATH 51 — Elementary Algebra 4 Units
  Not Degree Applicable
  72 hours lecture
  Prerequisite: MATH 50 or qualifying score on current department placement test
  Basic algebra, equivalent to first year high school algebra. Includes operations with signed numbers and algebraic expressions; linear, quadratic, rational, and radical equations; linear inequalities of one and two variables; slope/graphing/equations of lines; introduction to functions; systems of linear equations; exponent rules; polynomial operations; scientific notation; factoring; rational expressions; variation; radicals; fractional exponents; formulas; applications.

■ MATH 51A — Elementary Algebra - First Half 3 Units
  Not Degree Applicable
  54 hours lecture
  Prerequisite: MATH 50 or qualifying score on current department placement test
  Contains the first half of elementary algebra. Operations with signed numbers and algebraic expressions; linear equations and inequalities; exponent rules; polynomial operations; scientific notation; factoring; solving quadratic equations by factoring; rational expressions and equations; formulas; variation; applications.

■ 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 55 — Statway I 5 Units
  Not Degree Applicable
  90 hours lecture
  Prerequisite: MATH 50 or qualifying score on current department placement test.
  The Statway path is a two-semester sequence recommended for majors that require no mathematics beyond freshman-level statistics. MATH 55 is the first semester of two in the Statway sequence. MATH 55 includes topics from descriptive statistics (experimental design and descriptive statistics), and beginning algebra (linear and quadratic algebraic phenomena), and is a prerequisite for MATH 115, the second course in the Statway sequence. Both courses in the sequence, Math 55 and 115, must be taken to receive credit for college-level statistics.

■ MATH 61 — Plane Geometry 3 Units
  Degree Applicable
  54 hours lecture
  Prerequisite: MATH 51 or MATH 51B or qualifying score on current department placement test
  Points, lines, polygons and circles; their relationships to each other on plane surfaces; congruence, similarity and area. Introduction to inductive, deductive and indirect reasoning. The formal proof is introduced and practiced throughout the course. Stress is placed on accuracy of statement as a background for analytical and scientific reasoning.
### Course Descriptions

#### MATH 70S — Integrated Intermediate Algebra 5 Units

90 hours lecture
Prerequisite: MATH 50 or qualifying score on current department placement test.
Math 70S and 110S form a two-semester sequence that leads students through college level statistics. Simplification, solving of equations, graphing, and applications are covered. Each is applied to the following mathematical functions: polynomial, rational, radical, exponential and logarithmic. Rates and proportions, linear systems of equations, inequalities, sequence, series, design of experiments, one- and two-variable descriptive statistics are also covered.

#### MATH 71 — Intermediate Algebra 5 Units

90 hours lecture
Prerequisite: MATH 51 or MATH 51B or qualifying score on current department placement test.
Extends concepts from elementary algebra to prepare students for college-level 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.

#### MATH 71A — Intermediate Algebra - First Half 3 Units

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 approximately half of the MATH 71 topics. A student must complete both MATH 71A and 71B to have taken the equivalent of MATH 71, Intermediate Algebra.

#### MATH 71B — Intermediate Algebra - Second Half 3 Units

54 hours lecture
Prerequisite: MATH 71A
Quadratic equations and graphs; exponents, radicals and logarithms; conic sections. Covers remaining MATH 71 topics. A student must complete both MATH 71A AND 71B to have taken the equivalent of MATH 71, Intermediate Algebra.

#### MATH 71X — Practical Intermediate Algebra 5 Units

90 hours lecture
Prerequisite: MATH 51 or MATH 51B or MATH 55 or qualifying score on current department placement test.
Intermediate Algebra for the non-calculus path. Recommended for Humanities, Social Sciences, and Applied Sciences. Recommended prerequisite for Math 100, Math 110, and Math 120. Polynomial, rational, radical, exponential and logarithmic expressions are simplified, equations solved, and real-world phenomena are modeled using least-squares methods, functions graphed and analyzed; linear and nonlinear systems of equations and inequalities; sequences, series, and probabilities; data gathering instruments are used to sample data for curve fitting.

#### MATH 96 — Strategies for Math Success 1 Unit

18 hours lecture
(May be taken for Pass/No Pass only)
Perspectives, understandings and strategies to utilize a learning system for acquiring, understanding, remembering and producing mathematical knowledge. Course is appropriate for all levels of mathematics students.

#### MATH 99 — Special Projects in Mathematics 2 Units

36 hours lecture
In order to offer selected students recognition for their academic interests and ability and the opportunity to explore their disciplines to greater depth, the math department from time to time offers Special Projects courses. The content of each course and the methods of study vary from semester to semester and depend on the particular project under consideration. Instructor authorization needed prior to enrollment.

#### MATH 100 — Survey of College Mathematics 3 Units

54 hours lecture
Prerequisite: MATH 71 or MATH 71X or MATH 71B or qualifying score on current department placement test.
Mathematical methods and reasoning. Topics include: set theory, logic, counting methods, probability and statistics, with additional topics selected from numeration and mathematical systems, number theory, geometry, graph theory and mathematical modeling.

#### MATH 105 — Finite Mathematics 3 Units

54 hours lecture
Prerequisite: MATH 71 or MATH 71X or MATH 71B or qualifying score on current department placement test.
Mathematics for business, social science, and biological science majors. Topics include linear programming, matrix theory, probability, statistics, stochastic processes, Markov chains, and math of finance.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Degree Applicable</th>
<th>Corequisites/Prerequisites</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 130</td>
<td>College Algebra</td>
<td>4</td>
<td>Degree Applicable</td>
<td>College-level Algebra course. Study of real numbers and sets, algebraic functions and relations, radicals and exponents, linear and quadratic equalities and inequalities, exponential and logarithmic functions, systems of linear and cubic equations, complex numbers, series, theory of equations, mathematical induction and binomial formula.</td>
</tr>
<tr>
<td>MATH 140</td>
<td>Calculus for Business</td>
<td>4</td>
<td>Degree Applicable</td>
<td>72 hours lecture. Prerequisite: MATH 71 or MATH 71B or qualifying score on current department placement test Calculus for business, social science, and non-science majors. Algebraic, logarithmic, and exponential functions; limits; differentiation with applications; various techniques of integration with applications; differential equations; multi variable calculus.</td>
</tr>
<tr>
<td>MATH 150</td>
<td>Trigonometry</td>
<td>3</td>
<td>Degree Applicable</td>
<td>54 hours lecture. Prerequisite: MATH 71 or MATH 71B or qualifying score on current department placement test Trigonometric functions and inverse trigonometric functions and the graphical representations of these functions; solutions to right and oblique triangles with laws of sines and cosines; vectors; solutions to trigonometric equations; identities; polar coordinates; complex numbers and DeMoivre’s Theorem.</td>
</tr>
<tr>
<td>MATH 160</td>
<td>Precalculus Mathematics</td>
<td>4</td>
<td>Degree Applicable</td>
<td>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.</td>
</tr>
<tr>
<td>MATH 180</td>
<td>Calculus and Analytic Geometry</td>
<td>4</td>
<td>Degree Applicable</td>
<td>72 hours lecture. Prerequisite: MATH 160 or qualifying score on current department placement test Differential and integral calculus with applications. Functions, limits, the derivative, curve sketching, optimization, rules for differentiation of algebraic, exponential, logarithmic, and trigonometric functions with their inverses, with applications. Indefinite and definite integrals.</td>
</tr>
<tr>
<td>MATH 181</td>
<td>Calculus and Analytic Geometry</td>
<td>5</td>
<td>Degree Applicable</td>
<td>90 hours lecture. Prerequisite: MATH 180 Differential integral calculus with infinite series and applications. Includes applications of integration, techniques of integration, numerical integration, indeterminate forms and improper integrals, differential equations, conic sections, and polar coordinates.</td>
</tr>
<tr>
<td>MATH 245</td>
<td>A Transition to Advanced Mathematics</td>
<td>3</td>
<td>Degree Applicable</td>
<td>54 hours lecture. Prerequisite: MATH 181 A transition to the rigors of upper-division mathematics courses. Basic set theory and logic, relations, functions, mathematical induction, the well-ordering principle, countable and uncountable sets, the Schroder-Bernstein Theorem, the axiom of choice, Zorn’s Lemma, the Heine-Borel Theorem, the Bolzano-Weierstrass Theorem. Special emphasis on how to present and understand mathematical proofs.</td>
</tr>
<tr>
<td>MATH 280</td>
<td>Calculus and Analytic Geometry</td>
<td>5</td>
<td>Degree Applicable</td>
<td>90 hours lecture. Prerequisite: MATH 181 Multivariate and vector calculus, which includes vectors in two and three space and surfaces in space. Analysis of vector-valued functions. Partial derivatives, differentials, the chain rule, directional derivatives and the gradient algebras of several variables with applications. Multiple integrals in various coordinate systems with applications. Vector fields, line integrals, independence of path. Green’s Theorem, surface integrals, flux, divergence and curl. Stokes’ Theorem and the Divergence Theorem.</td>
</tr>
<tr>
<td>MATH 285</td>
<td>Linear Algebra and Differential Equations</td>
<td>5</td>
<td>Degree Applicable</td>
<td>90 hours lecture. Prerequisite: MATH 280 First order ordinary differential equations, 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.</td>
</tr>
</tbody>
</table>

**Medical Terminology**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Degree Applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 71</td>
<td>College Algebra</td>
<td></td>
<td>Degree Applicable</td>
</tr>
</tbody>
</table>
### Course Descriptions

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>MENT 58D — Advanced Medical-Surgical Nursing and Pharmacology for PT</td>
<td>4</td>
<td>Degree Applicable 72 hours lecture Prerequisite: MENT 56, MENT 56L Corequisite: MENT 58L Disease processes affecting body systems; etiology; required nursing care; study of drugs: standards, administration, dose calculations.</td>
</tr>
<tr>
<td>MENT 58L — Advanced Medical-Surgical Nursing for Psychiatric Technicians Clinical</td>
<td>1.5</td>
<td>Degree Applicable 27 hours lecture Prerequisite: Admission to Psychiatric Technician Program Corequisite: MENT 70L Role and function of the Psychiatric Technician. Includes mental health theories of personality development, self-concept, role function, and interdependence. Also includes developmental disabilities theories of sensorimotor techniques and behavior modification techniques.</td>
</tr>
<tr>
<td>MENT 70 — Introduction to Psychiatric Technology</td>
<td>1.5</td>
<td>Degree Applicable 108 hours lecture Prerequisite: Admission to Psychiatric Technician Program Corequisite: MENT 70L Role and function of the Psychiatric Technician. Includes mental health theories of personality development, self-concept, role function, and interdependence. Also includes developmental disabilities theories of sensorimotor techniques and behavior modification techniques.</td>
</tr>
<tr>
<td>MENT 72 — Nursing Care of the Developmentally Disabled Person</td>
<td>7</td>
<td>Degree Applicable 126 hours lecture Prerequisite: MENT 56, MENT 56L, MENT 70, MENT 70L Corequisite: MENT 72L Etiology of developmental disabilities; develops the knowledge, skills, and attitudes necessary to safely teach individuals diagnosed with intellectual and developmental disabilities. Techniques of behavior modification, positive behavior support and sensorimotor training are used, as well as the teaching of self-help skills. Examines normal development from infancy to the aged.</td>
</tr>
<tr>
<td>MENT 72L — Nursing Care of the Developmentally Disabled Person - Clinical</td>
<td>5.5</td>
<td>Degree Applicable (May be taken for Pass/No Pass only) 287 hours lab Prerequisite: MENT 72 Corequisite: MENT 72 Application of skills needed to teach, train, and provide care for the individuals with intellectual/physical and other developmental disabilities.</td>
</tr>
<tr>
<td>MENT 73L — Psychiatric Nursing for Psychiatric Technicians Clinical</td>
<td>5.5</td>
<td>Degree Applicable (May be taken for Pass/No Pass only) 287 hours lab Prerequisite: Admission to Psychiatric Technician Program. MENT 56 and MENT 56L Corequisite: MENT 73T Clinical instruction in the assessment and treatment of individuals diagnosed with mental disorders.</td>
</tr>
<tr>
<td>MENT 72T — Psychiatric Nursing for Psychiatric Technicians</td>
<td>6</td>
<td>Degree Applicable 108 hours lecture Prerequisite: MENT 56 MENT 56L Corequisite: MENT 73L PSYC 1A Advisory: MENT 40 Theoretical instruction in the assessment and treatment of individuals diagnosed with mental disorders, medications used in the treatment of mental disorders, therapeutic communication and other therapeutic techniques, and assertiveness and leadership skills necessary for safe practice as a licensed Psychiatric Technician.</td>
</tr>
<tr>
<td>MENT 82 — Work Experience in Mental Health Technology</td>
<td>2</td>
<td>Degree Applicable (May be taken for Pass/No Pass only) 150 hours lab Prerequisite: Compliance with Work Experience regulations as designated in the College Catalog, MENT 72, and MENT 73T Provides students with on-the-job experience in the field of mental health, nursing skills, addiction paraprofessional training, and/or developmental disability, related to classroom instruction, at an approved work site. On-the-job experience at an approved work site. Requires 150 paid or 120 non-paid hours.</td>
</tr>
</tbody>
</table>

### MENTO 3 — Weather and the Atmospheric Environment

54 hours lecture Processes that influence weather and climate: seasonality, structure of the atmosphere, atmospheric stability, severe weather (hurricanes, tornadoes, thunderstorms), climate change, and the causes and effects of air pollution. Students will use a variety of weather instruments, and the course may include either field work or field trips.

### METO 3L — Weather and Atmospheric Environment Laboratory

54 hours lab Laboratory applications and problem-solving related to the atmospheric environment. Emphasizes the collection and analysis of weather and climate data.

### MICROBIOLOGY

**MICR 1 — Principles of Microbiology**

54 hours lecture 108 hours lab Prerequisite: CHEM 10 or CHEM 40. One year of college chemistry is recommended for all transfer majors. CHEM 50/51 sequence is preferred for biology and most pre-health professional majors.

Fundamental concepts of microbiology with emphasis on bacteria. Survey of microbial classification, morphology, physiology and genetics; beneficial and pathological aspects; growth and control of microbes; virology, immunology, and host-microbe interactions. Important infectious diseases of humans are surveyed. Laboratory exercises examine microbial morphology, physiology and genetics, as well as environmental influences of microorganisms. Laboratory techniques include culturing, examining, and identifying microorganisms. Field trips are required.

**MICR 22 — Microbiology**

54 hours lecture 54 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 including viruses, bacteria, fungi, protozoa and parasitic worms.
<table>
<thead>
<tr>
<th>COURSE DESCRIPTIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>MICR 26 — Introduction to Immunology</strong></td>
</tr>
<tr>
<td>Degree Applicable</td>
</tr>
<tr>
<td>54 hours lecture</td>
</tr>
<tr>
<td>Prerequisite: MICRO 1 or MICRO 22</td>
</tr>
<tr>
<td>Advisory: BIOL 1, BIOL 4 or BIOL 4H</td>
</tr>
<tr>
<td>Immunology including principles of innate and adaptive immunity, B and T lymphocyte structure, function, and development, the major histocompatibility complex, immune system errors, and applications and techniques in the immunology field as they pertain to medical diagnostics, immunohistochemistry, and biotechnology.</td>
</tr>
<tr>
<td><strong>MUS 5A — Musicianship - Ear Training and Sight Singing</strong></td>
</tr>
<tr>
<td>(C-ID MUS 125)</td>
</tr>
<tr>
<td>Degree Applicable, CSU, UC</td>
</tr>
<tr>
<td>54 hours lab</td>
</tr>
<tr>
<td>Prerequisite: MUS 2</td>
</tr>
<tr>
<td>Corequisite: MUS 2</td>
</tr>
<tr>
<td>Training in diatonic sight singing, rhythm reading, aural recognition and the dictation of rhythm and diatonic melody. Ability to read music and match pitch is advised. Required for music majors.</td>
</tr>
<tr>
<td><strong>MUS 5B — Musicianship - Diatonic</strong></td>
</tr>
<tr>
<td>(C-ID MUS 135)</td>
</tr>
<tr>
<td>Degree Applicable, CSU, UC</td>
</tr>
<tr>
<td>54 hours lab</td>
</tr>
<tr>
<td>Prerequisite: MUS 5A</td>
</tr>
<tr>
<td>Corequisite: MUS 3A</td>
</tr>
<tr>
<td>Training in sight singing, rhythm reading, aural recognition and the dictation of rhythm, melody and harmony. This course covers diatonic music.</td>
</tr>
<tr>
<td><strong>MUS 5C — Musicianship - Chromatic I</strong></td>
</tr>
<tr>
<td>(C-ID MUS 136)</td>
</tr>
<tr>
<td>Degree Applicable, CSU, UC</td>
</tr>
<tr>
<td>54 hours lab</td>
</tr>
<tr>
<td>Prerequisite: MUS 5B</td>
</tr>
<tr>
<td>Corequisite: MUS 3B</td>
</tr>
<tr>
<td>Sight singing and dictation of music with chromatic embellishments, secondary functions and modulations to closely-related keys.</td>
</tr>
<tr>
<td><strong>MUS 5D — Fundamentals of Music</strong></td>
</tr>
<tr>
<td>(C-ID MUS 110)</td>
</tr>
<tr>
<td>Degree Applicable, CSU, UC</td>
</tr>
<tr>
<td>54 hours lecture</td>
</tr>
<tr>
<td>Music notation and the elements of music for non-music majors. Topics include pitch, rhythm, key, intervals and chords.</td>
</tr>
<tr>
<td><strong>MUS 5E — Introduction to Music Technology</strong></td>
</tr>
<tr>
<td>Degree Applicable, CSU</td>
</tr>
<tr>
<td>(May be taken for option of letter grade or Pass/No Pass)</td>
</tr>
<tr>
<td>36 hours lecture</td>
</tr>
<tr>
<td>54 hours lab</td>
</tr>
<tr>
<td>Advisory: Eligibility for ENGL 68</td>
</tr>
<tr>
<td>Uses of computers and electronic devices to create, capture, 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, and the dictation of rhythm and diatonic melody. Ability to read music and match pitch is advised. Required for music majors.</td>
</tr>
<tr>
<td><strong>MUS 2 — Music Theory</strong></td>
</tr>
<tr>
<td>(C-ID MUS 120)</td>
</tr>
<tr>
<td>Degree Applicable, CSU, UC</td>
</tr>
<tr>
<td>54 hours lecture</td>
</tr>
<tr>
<td>Corequisite: MUS 2</td>
</tr>
<tr>
<td>Preparation for the study of harmony and form as it is practiced in Western tonal music. Topics include scales, intervals, chords, cadences, counterpoint and Roman numeral analysis. Ability to read music notation is advised. Required for music majors.</td>
</tr>
<tr>
<td><strong>MUS 3A — Harmony - Diatonic</strong></td>
</tr>
<tr>
<td>Degree Applicable, CSU, UC</td>
</tr>
<tr>
<td>54 hours lecture</td>
</tr>
<tr>
<td>Prerequisite: MUS 2</td>
</tr>
<tr>
<td>Corequisite: MUS 5B</td>
</tr>
<tr>
<td>An examination of harmony and form as it is practiced in Western tonal music. This course covers diatonic harmony, from its syntax to its contrapuntal conventions, with musical examples drawn primarily from Renaissance ground basses, American folksong and the chorales of Bach.</td>
</tr>
<tr>
<td><strong>MUS 3B — Harmony - Chromatic I</strong></td>
</tr>
<tr>
<td>Degree Applicable, CSU, UC</td>
</tr>
<tr>
<td>54 hours lecture</td>
</tr>
<tr>
<td>Prerequisite: MUS 3A</td>
</tr>
<tr>
<td>Corequisite: MUS 6A</td>
</tr>
<tr>
<td>Harmony and form as it is practiced in Western tonal music. This course focuses on secondary chromaticism and modulation.</td>
</tr>
<tr>
<td><strong>MUS 3C — Harmony - Chromatic II</strong></td>
</tr>
<tr>
<td>Degree Applicable, CSU, UC</td>
</tr>
<tr>
<td>54 hours lecture</td>
</tr>
<tr>
<td>Prerequisite: MUS 3B</td>
</tr>
<tr>
<td>Corequisite: MUS 6B</td>
</tr>
<tr>
<td>Examination of harmony and form as it is practiced in Western tonal music with a focus on advanced chromatic harmony. The course concludes with a study of sonata form as practiced by Haydn, Mozart and Beethoven.</td>
</tr>
<tr>
<td><strong>MUS 6A — Music Literature Survey</strong></td>
</tr>
<tr>
<td>Degree Applicable, CSU, UC</td>
</tr>
<tr>
<td>Western music from the 15th through the 18th century, including examples of non-western cultures, for music majors. Lectures are augmented by sound recordings. Attending a live concert may be required.</td>
</tr>
</tbody>
</table>
Course Descriptions

**MUS 11B — Music Literature Survey**  
3 Units  
Degree Applicable, CSU, UC  
54 hours lecture  
Western music from the 18th to the early 21st century including examples from several non-western cultures that have influenced music of those style periods. Lectures are augmented by recordings and other support media pertinent to the cultures and periods being studied. Attending at least one live concert is required.

**MUS 12 — History of Jazz**  
3 Units  
Degree Applicable, CSU, UC  
(May be taken for option of letter grade or Pass/No Pass)  
54 hours lecture  
Advisor: Eligibility for ENGL 68.  
A survey of jazz as a significant American art form from its roots in African music to the present. Major styles, leading performers, significant compositions and recordings, and the social, economic, and cultural contexts of the music will be stressed.

**MUS 13 — Introduction to Music Appreciation**  
3 Units  
(C-ID MUS 100)  
Degree Applicable, CSU, UC  
54 hours lecture  
Western music from the Medieval period through the 21st century, including music from a variety of cultures. Lectures are augmented by recordings and other support media pertinent to the culture and period being studied. Attending at least one live concert is required.

**MUS 13H — Introduction to Music Appreciation - Honors**  
3 Units  
(C-ID MUS 100)  
Degree Applicable, CSU, UC  
54 hours lecture  
Prerequisite: Acceptance into the Honors Program  
Western music from the Medieval period through the 21st century, including music from a variety of cultures. Lectures are augmented by recordings and other support media pertinent to the culture and period being studied. Attending at least one live concert is required.

**MUS 14A — World Music**  
3 Units  
Degree Applicable, CSU, UC  
54 hours lecture  
Advisor: Eligibility for ENGL 68  
Examines the dominant musical cultures of the world within Africa, the Americas, Europe, and Asia and compares these to Western popular music. Identifies vocal and instrumental genres within selected cultures and examines the harmonic, melodic, and rhythmic characteristics of each style. Lectures, films, recordings, and media presentations will assist the student in exploring the ways in which music is used around the world for aesthetic, social, and spiritual purposes.

**MUS 14B — American Folk Music**  
3 Units  
Degree Applicable, CSU, UC  
54 hours lecture  
The study of American folk music by both region and period. Instruction will include lecture, reading, and listening assignments, and various audio-visual materials. No previous musical experience required.

**MUS 15 — Rock Music History and Appreciation**  
3 Units  
Degree Applicable, CSU, UC  
(May be taken for option of letter grade or Pass/No Pass)  
54 hours lecture  
Historical survey of rock music from its beginnings in the early 50’s to the present. Rhythm and blues, rockabilly, the British Invasion, Motown, soul, folk rock, hard rock, punk, metal, and various alternative rock styles will be discussed. Personalities and musical styles will be related to the sociology of the time period being studied.

**MUS 15H — History and Appreciation of Rock and Popular Music - Honors**  
3 Units  
Degree Applicable, CSU  
54 hours lecture  
Prerequisite: Acceptance into the Honors Program  
Historical survey of rock music from its beginnings in the early 50’s to the present. Rhythm and blues, rockabilly, the British Invasion, Motown, soul, folk rock, hard rock, punk, metal, and various alternative rock styles will be discussed. Personalities and musical styles will be related to the sociology of the time period being studied. An honors course designed to provide enriched experience. Students may not receive credit for both MUS 15 and MUS 15H.

**MUS 16 — Individual Instruction**  
.5 Unit  
Degree Applicable, CSU, UC  
(May be taken four times for credit)  
32 hours lab  
Prerequisite: Admission by audition  
Applied music for students also enrolled in a major performing group. Instruction includes a private one-half hour lesson per week. Individual problems of performance techniques, interpretation, and repertoire are included. Students who repeat this course will improve skills through further instruction and practice.

**MUS 17A — Elementary Piano**  
1 Unit  
Degree Applicable, CSU, UC  
54 hours lab  
Reading and performance of piano literature with emphasis on scales, chord progressions, and sight reading. No prior musical experience is required.

**MUS 17B — Intermediate Piano**  
1 Unit  
Degree Applicable, CSU, UC  
54 hours lab  
Advisor: MUS 17A  
Reading and performances of piano literature with emphasis on major and minor scales in multiple octaves utilizing multiple textures. Includes use of damper pedal.

**MUS 18 — Advanced Piano**  
1 Unit  
Degree Applicable, CSU, UC  
54 hours lab  
Advisor: MUS 17B  
Style, technique and interpretation of piano music from the 17th century to the present is studied collectively and individually. Sight reading, improvisation and ensemble playing will be emphasized. Recommended for music majors.

**MUS 20A — Elementary Voice**  
1 Unit  
Degree Applicable, CSU, UC  
54 hours lab  
Group singing instruction with an emphasis on breathing and posture and their importance in the singing of the musical line, performance techniques, and vocal quality. English and American songs are studied and performed. Open to non-music majors and recommended for all music majors.

**MUS 20B — Intermediate Voice**  
1 Unit  
Degree Applicable, CSU, UC  
54 hours lab  
Advisor: MUS 20A  
Group and individual instruction concentrating on individual vocal development and emphasizing singing techniques required for singing popular, theatrical, and classical music. Includes singing in foreign languages.

**MUS 21 — Advanced Voice**  
1 Unit  
Degree Applicable, CSU, UC  
54 hours lab  
Advisor: 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 Italian, German, and French.

**MUS 22 — Conducting**  
1.5 Units  
Degree Applicable, CSU  
18 hours lecture  
18 hours lab  
Beat patterns, score reading, and rehearsal techniques for conducting. Includes techniques needed for group direction and leadership.
MUS 23A — Elementary Guitar 1 Unit
54 hours lab
Acoustic guitar playing, note reading, strumming, finger picking and improvisation. Students must furnish their own guitars.

MUS 23B — Intermediate Guitar 1 Unit
54 hours lab
Advisory: MUS 23A
Techniques for reading and playing music arranged for the solo guitar. Students must furnish their own acoustic guitar.

MUS 24 — Advanced Guitar 1 Unit
48 hours lab
Advisory: MUS 23B
Style, technique, and interpretation of guitar music of the 18th and 19th centuries. Includes sight reading and ensemble playing. Students must furnish their own acoustic guitars.

MUS 25A — Jazz Improvisation 1 Unit
(May be taken for option of letter grade or Pass/No Pass)
48 hours lab
Style and techniques of jazz improvisation. Students must furnish their own musical instruments to play for and with the class.

MUS 25B — Jazz Improvisation 1 Unit
(May be taken for option of letter grade or Pass/No Pass)
54 hours lab
Advisory: MUS 25A
Advanced techniques of jazz improvisation. Includes minor, dominant, and pentatonic scales along with arpeggiating poly chords, altered chords, chord progressions, and 32-bar jazz standards. Students must furnish their instruments and be able to perform individually and with the class.

MUS 27 — Chamber Music 1.5 Units
(C-ID MUS 180)
(May be taken for credit)
72 hours lab
Prerequisite: Admission by audition
Select ensemble of winds, strings, guitar, and percussion instrumentalists specializing in the performance of chamber music from the medieval period to the present. The course may include brass quintets, woodwind quintets, saxophone quartets, and mixed instrumental ensembles of two through twenty performers. Students must have previous instrumental experience and pass an entrance audition during the first week of instruction. Public performances on campus and in the community are required. Students who repeat this course will improve skills through further instruction and practice.

MUS 29 — Choral Workshop 1 Unit
(May be taken four times for credit)
54 hours lab
Choral music of all genres with an emphasis on strengthening choral skills, including sight singing, tone, blend, balance and good vocal technique. Covers choral tone of the Renaissance to correct use of the microphone when singing pop or vocal jazz. Students who repeat this course will improve skills through further instruction and practice. Open to all students without an audition.

MUS 30 — Collegiate Chorale 1 Unit
(May be taken four times for credit)
54 hours lab
A non-auditioned mixed choral ensemble open to all students. A variety of mixed choral repertoire will be studied and performed, from music of the Renaissance to contemporary Pop, Broadway, and Vocal Jazz. Rehearsal time will also be devoted to vocal development and improving music theory skills. Students who repeat this course will improve skills through further instruction and practice. Attendance at performances is required.

MUS 31 — Concert Choir 1.5 Units
(May be taken for option of letter grade or Pass/No Pass)
72 hours lab
Prerequisite: Admission by audition
A large mixed choral ensemble in which students perform a variety of major choral works. Classical songs are rehearsed in class and performed for a public audience. Sight singing skills and proper vocal technique are emphasized. Voice placement auditions are held the first week of class. Attendance at all performances including those off-site is required. Students who repeat this course will improve skills through further instruction and practice. Auditions held first week of the semester.

MUS 32 — Women's Vocal Ensemble 2 Units
(May be taken for option of letter grade or Pass/No Pass)
108 hours lab
Prerequisite: Admission by audition
Women's vocal ensemble that studies and performs selected classical works, folk songs, spirituals, and popular compositions. Attendance is required at all public performances including off-campus locations. Students who repeat this course will improve skills through further instruction and practice. Auditions held first week.

MUS 33 — Ensemble .5 Unit
(May be taken for option of letter grade or Pass/No Pass)
Degree Applicable, CSU, UC
A non-auditioned mixed choral ensemble open to all students. A variety of mixed choral repertoire will be studied and performed, from music of the Renaissance to contemporary Pop, Broadway, and Vocal Jazz. Rehearsal time will also be devoted to vocal development and improving music theory skills. Students who repeat this course will improve skills through further instruction and practice. Attendance at performances is required.

MUS 38 — Collegiate Chorale 1 Unit
(May be taken four times for credit)
54 hours lab
A non-auditioned mixed choral ensemble open to all students. A variety of mixed choral repertoire will be studied and performed, from music of the Renaissance to contemporary Pop, Broadway, and Vocal Jazz. Rehearsal time will also be devoted to vocal development and improving music theory skills. Students who repeat this course will improve skills through further instruction and practice. Attendance at performances is required.

MUS 39 — Laboratory Band 2 Units
(May be taken for option of letter grade or Pass/No Pass)
72 hours lab
Prerequisite: Admission by audition
A large mixed choral ensemble in which students perform a variety of major choral works. Classical songs are rehearsed in class and performed for a public audience. Sight singing skills and proper vocal technique are emphasized. Voice placement auditions are held the first week of class. Attendance at all performances including those off-site is required. Students who repeat this course will improve skills through further instruction and practice. Auditions held first week of the semester.

MUS 44 — Vocal Jazz Ensemble 2 Units
(May be taken for option of letter grade or Pass/No Pass)
108 hours lab
Prerequisite: Admission by audition
A vocal ensemble appropriate for beginning and intermediate jazz singers. This group will perform vocal jazz charts accompanied by a rhythm section, as well as a cappella. Basics of singing jazz, vocal improvisation, group singing techniques, and microphone techniques. Ensemble will perform locally and/or at vocal jazz festivals. Attendance at performances and competitions is required. Students who repeat this course will improve skills through further instruction and practice.
Course Descriptions

**MUS 45 — Chamber Singers** 2 Units
(C-ID MUS 180) Degree Applicable, CSU, UC
(May be taken four times for credit)
(May be taken for option of letter grade or Pass/No Pass)
108 hours lab
Prerequisite: Admission by audition
Premier mixed choral group, specializing in smaller ensemble repertoire. A wide variety of choral literature is performed publicly several times each semester and a performance tour occurs each spring semester. Emphasizes advanced musical skills and vocal techniques while focusing on the importance of blend, balance, and tone. Auditions for this course are held each May. Students who repeat this course will improve skills through further instruction and practice. Off-campus performances are required.

**MUS 47 — Jazz Ensemble** 2 Units
Degree Applicable, CSU, UC
(May be taken four times for credit)
(May be taken for option of letter grade or Pass/No Pass)
108 hours lab
Prerequisite: Admission by audition
Study and performance of jazz and big band music. Provides an opportunity to learn techniques applicable to the large jazz ensemble. Off-campus public performance required. Students who repeat this course will improve skills through further instruction and practice.

**MUS 48 — Men’s Vocal Ensemble** 2 Units
Degree Applicable, CSU, UC
(May be taken four times for credit)
(May be taken for option of letter grade or Pass/No Pass)
108 hours lab
Prerequisite: Admission by audition
A premier vocal jazz choir. This choir will perform vocal jazz arrangements and students will study the historical, theoretical and technical aspects of both instrumental and vocal jazz. Solo singing techniques and scat singing will be rehearsed and the choir will perform at least one concert each semester at Mt. SAC along with attending and performing at a variety of musical venues. Work with guest artists and make CD recordings. Attendance is required at assigned public performances. Students who repeat this course will improve skills through further instruction and practice. Admission by audition. Off-campus performances are required.

**MUS 49 — Wind Ensemble** 2 Units
(C-ID MUS 180) Degree Applicable, CSU, UC
(May be taken four times for credit)
108 hours lab
Prerequisite: Admission by audition
The premier classical wind and percussion ensemble at the college. Students must have previous musical training, a standard band instrument and pass an entrance audition. A variety of wind band repertoire will be studied and performed, from music of the medieval period to contemporary compositions. Public performances on campus and in the community are required each semester and a concert tour may be included. Opportunities to conduct, arrange and compose music, and perform as a soloist may be provided to capable students. Students who repeat this course will improve skills through further instruction and practice.

**MUS 50 — Jazz Improvisation and Performance Choir** 2 Units
(C-ID MUS 180) Degree Applicable, CSU
(May be taken four times for credit)
(May be taken for option of letter grade or Pass/No Pass)
108 hours lab
Prerequisite: Admission by audition
A premier vocal jazz choir. This choir will perform vocal jazz arrangements and students will study the historical, theoretical and technical aspects of both instrumental and vocal jazz. Solo singing techniques and scat singing will be rehearsed and the choir will perform at least one concert each semester at Mt. SAC along with attending and performing at a variety of musical venues. Work with guest artists and make CD recordings. Attendance is required at assigned public performances. Students who repeat this course will improve skills through further instruction and practice. Admission by audition. Off-campus performances are required.

**MUS 59 — Special Projects in Music** 1 to 2 Units
Degree Applicable, CSU
54 to 108 hours lab
Offered to selected students in recognition of academic interests and abilities to give them the opportunity to explore these interests in greater depth. The content of each course and the methods of study vary from semester to semester and depend on the particular project under consideration. Students must have an instructor’s approval before enrolling in this course.

**NURSING**

**NURS 1A — The Nursing Process I** 5 Units
Degree Applicable, CSU
45 hours lecture
135 hours lab
Prerequisite: Admission to Nursing Program; ANAT 35 or equivalent
MATH 51
Corequisite: NURS 2
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 1B — The Nursing Process II** 5 Units
Degree Applicable, CSU
45 hours lecture
135 hours lab
Prerequisite: NURS 1A
Corequisite: NURS 2
Concepts 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
Degree Applicable, CSU
30 hours lecture
108 hours lab
Prerequisite: NURS 1B and NURS 2 or Advanced Placement
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.

**NURS 3 — Medical-Surgical Nursing: Locomotion/Sensory/Integ/Oncolomu** 3.5 Units
Degree Applicable, CSU
27 hours lecture
81 hours lab
Prerequisite: NURS 3 or Advanced Placement
Concepts of nursing assessment and intervention with application to clients with integumentary and immunologic disorders as well as dysfunctions of sensation and locomotion. An introduction to oncology nursing is included. The Betty Neuman Model serves as the conceptual framework.

**NURS 4 — Maternity Nursing** 3 Units
Degree Applicable, CSU
27 hours lecture
81 hours lab
Prerequisite: NURS 3 or Advanced Placement
Concepts of nursing assessment and intervention with application to maternity and newborn clients. The Betty Neuman Model serves as the conceptual framework.

**NURS 5 — Psychiatric Nursing** 3 Units
Degree Applicable, CSU
27 hours lecture
81 hours lab
Prerequisite: NURS 7 or NURS 70 (Advanced Placement) and PSYC 1AH
Concepts of nursing assessment and intervention with application to clients with psychiatric disorders in a mental health setting. The Betty Neuman Model serves as the conceptual framework.
<table>
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<tr>
<th>Subject</th>
<th>Course Title</th>
<th>Units</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td><strong>NURS 6</strong> - Pediatric Nursing</td>
<td>3 Units</td>
<td>Degree Applicable, CSU</td>
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<td></td>
<td></td>
<td>27 hours lecture</td>
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<td></td>
<td></td>
<td>81 hours lab</td>
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<td></td>
<td>Prerequisite: NURS 4 or NURS 70 (Advanced Placement) and CHLD 10 or CHLD 10H or PSYC 14</td>
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<td>Concepts of nursing assessment, diagnosis, planning, implementation, and evaluation with application to pediatric clients. The Betty Neuman Model serves as the conceptual framework.</td>
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<tr>
<th>Subject</th>
<th>Course Title</th>
<th>Units</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td><strong>NURS 7</strong> - Medical-Surgical Nursing: Nutrition/Elimination/Surgical Asepsis</td>
<td>7 Units</td>
<td>Degree Applicable, CSU</td>
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<td></td>
<td></td>
<td>63 hours lecture</td>
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<td></td>
<td>189 hours lab</td>
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<td></td>
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<td>Prerequisite: NURS 6 or Advanced Placement</td>
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<td>Nursing assessment and intervention with application to clients with problems of nutrition, elimination, and the reproductive systems. Clients in pre-, intra-, and post-operative settings are included. The Betty Neuman Model serves as the conceptual framework.</td>
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<tr>
<th>Subject</th>
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<th>Units</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td><strong>NURS 8</strong> - Medical-Surgical Nursing: Circulation and Oxygenation</td>
<td>5 Units</td>
<td>Degree Applicable, CSU</td>
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<td></td>
<td></td>
<td>45 hours lecture</td>
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<td></td>
<td></td>
<td>135 hours lab</td>
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<td></td>
<td></td>
<td>Prerequisite: NURS 5 or Advanced Placement (NURS 70)</td>
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<td>Corequisite: NURS 9</td>
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<td></td>
<td>Nursing assessment and intervention with application to clients with cardiovascular and pulmonary problems. The Betty Neuman Model serves as the conceptual framework.</td>
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<tr>
<th>Subject</th>
<th>Course Title</th>
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<tbody>
<tr>
<td><strong>NURS 9</strong> - Leadership in Nursing</td>
<td>1 Unit</td>
<td>Degree Applicable, CSU</td>
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<td>18 hours lecture</td>
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<td>Prerequisite: NURS 5 or Advanced Placement (NURS 70)</td>
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<td></td>
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<td>Corequisite: NURS 9</td>
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<tr>
<td></td>
<td></td>
<td>Nursing assessment and intervention with application to clients with cardiovascular and pulmonary problems. The Betty Neuman Model serves as the conceptual framework.</td>
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<thead>
<tr>
<th>Subject</th>
<th>Course Title</th>
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<th>Description</th>
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</thead>
<tbody>
<tr>
<td><strong>NURS 10</strong> - Medical-Surgical Nursing: Integration/Regulation</td>
<td>4 Units</td>
<td>Degree Applicable, CSU</td>
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<td></td>
<td></td>
<td>45 hours lecture</td>
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<td></td>
<td>81 hours lab</td>
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<td>Prerequisite: NURS 8 and NURS 9, or Advanced Placement (NURS 70)</td>
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<tr>
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<td></td>
<td>Concepts of nursing assessment and intervention with application to clients with neurological and endocrine disorders. The Betty Neuman Model serves as the conceptual framework.</td>
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<tr>
<th>Subject</th>
<th>Course Title</th>
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<tbody>
<tr>
<td><strong>NURS 11</strong> - Preceptorship in Nursing</td>
<td>2 Units</td>
<td>Degree Applicable, CSU</td>
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<td>(May be taken for Pass/No Pass only)</td>
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<td></td>
<td></td>
<td>108 hours lab</td>
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<td>Prerequisite: NURS 10 or Advanced Placement</td>
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<td></td>
<td>Students participate as a pre-licensed Registered Nurse immediately prior to graduation. Students assume responsibility for a group of clients under direct supervision of a qualified registered nurse.</td>
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<tr>
<th>Subject</th>
<th>Course Title</th>
<th>Units</th>
<th>Description</th>
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<tbody>
<tr>
<td><strong>NURS 20</strong> - Nursing Work Experience Program</td>
<td>1 to 4 Units</td>
<td>Not Degree Applicable</td>
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<td>(May be taken for Pass/No Pass only)</td>
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<td>75 to 300 hours lab</td>
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<td>Prerequisite: Compliance with Work Experience regulations as designated in the College Catalog. Current satisfactory status in the Nursing Program</td>
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<td>On-the-job experience for nursing students in an approved work setting related to classroom, theory and clinical instruction. A minimum of 75 paid or 60 non-paid clock hours per semester of supervised work is required for each unit of credit. It is recommended that the hours per week be equally distributed throughout the semester.</td>
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<th>Subject</th>
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<th>Units</th>
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<tbody>
<tr>
<td><strong>NURS 70</strong> - Role Transition</td>
<td>3 Units</td>
<td>Degree Applicable</td>
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<td>(May be taken for Pass/No Pass only)</td>
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<td>36 hours lecture</td>
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<td></td>
<td>54 hours lab</td>
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<td>Prerequisite: Advanced Placement; PT (Psychiatric Technician) or LVN (Licensed Vocational Nurse); ANAT 35 and ANAT 36 or ANAT 10A and ANAT 10B, and MICR 22, or MICR 1, and ENGL 1A or ENGL 1AH, and PSYC 1A or PSYC 1AH, and CHLD 10 or CHLD 10H or PSYC 14</td>
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<td>For the LVN (Licensed Vocational Nurse), PT (Psychiatric Technician) or advanced placement student transitioning into the role of the RN (Registered Nurse). Theory and application of concepts of physical assessment, the relationship of homeostatic mechanisms to fluid and electrolyte balance and imbalance utilizing the Betty Neuman Model as the conceptual framework.</td>
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<tr>
<th>Subject</th>
<th>Course Title</th>
<th>Units</th>
<th>Description</th>
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<tbody>
<tr>
<td><strong>NF 1</strong> - Introduction to Nutrition as a Career</td>
<td>1.5 Units</td>
<td>Degree Applicable, CSU</td>
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<td></td>
<td></td>
<td>27 hours lecture</td>
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<td>Prerequisite: NF 10, or NF 25, or NF 25H</td>
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<td>Careers in dietetics, food science, and the food industry. Includes program requirements for nutrition and dietetics majors, career opportunities, professional organizations, ethics, and future directions. Students should be considering a major in nutrition, dietetics, nutrition science, or food science upon transfer. Field trips may be required.</td>
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<tr>
<th>Subject</th>
<th>Course Title</th>
<th>Units</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td><strong>NF 10</strong> - Nutrition for Personal Health and Wellness</td>
<td>3 Units</td>
<td>Degree Applicable, CSU</td>
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<td></td>
<td></td>
<td>54 hours lecture</td>
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<td></td>
<td>Prerequisite: Eligibility for ENGL 68</td>
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<td>Principles of nutrition and its relationship to optimum health. Emphasizes nutrient needs, food selection and weight control during the various life stages from prenatal to adult. Student food intake is evaluated in several ways including computer diet analysis. This course is intended for non-health science majors.</td>
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<th>Subject</th>
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<tbody>
<tr>
<td><strong>NF 12</strong> - Sports Nutrition</td>
<td>3 Units</td>
<td>Degree Applicable, CSU, UC</td>
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<td></td>
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<td>54 hours lecture</td>
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<td></td>
<td>Prerequisite: Eligibility for ENGL 68</td>
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<td>Principles of nutrition are studied and applied to the athlete and active individuals. Includes macro and micro nutrient intakes, hydration, pre and post event food choices, supplements and ergogenic aids, body composition, weight loss/gain. This course also examines the cultural, sociological, and psychological influences related to nutrition, fitness and athletic achievement.</td>
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<tbody>
<tr>
<td><strong>NF 20</strong> - Principles of Food with Lab</td>
<td>3 Units</td>
<td>Degree Applicable, CSU</td>
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<td></td>
<td></td>
<td>36 hours lecture</td>
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<td></td>
<td></td>
<td>54 hours lab</td>
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<td>Prerequisite: Eligibility for ENGL 68 and Eligibility for MATH 50</td>
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<td>Application of food science principles with emphasis on ingredient function and interaction, food preparation techniques, sensory evaluation standards, food safety and sanitation, and nutrient composition and of food.</td>
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<tr>
<th>Subject</th>
<th>Course Title</th>
<th>Units</th>
<th>Description</th>
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<tbody>
<tr>
<td><strong>NF 25</strong> - Essentials of Nutrition</td>
<td>3 Units</td>
<td>Degree Applicable, CSU, UC</td>
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<td></td>
<td></td>
<td>54 hours lecture</td>
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<td></td>
<td></td>
<td>Prerequisite: Eligibility for ENGL 68</td>
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<td>Scientific concepts of nutrition related to the function of nutrients and current health issues with emphasis on individual needs. Topics include: functions and sources of nutrients; scientific principles to analyze and evaluate nutrition information; Dietary Guidelines and current nutrition recommendations; digestion, absorption, and metabolism; health, fitness, and disease; and nutrition in the life span. Students will record their diet, analyze its composition, and evaluate its nutrient content. Course is appropriate for health science majors.</td>
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</table>
COURSE DESCRIPTIONS

NF 25H — Essentials of Nutrition - Honors 3 Units (C-ID NUTR 110) Degree Applicable, CSU, UC
54 hours lecture
Prerequisite: Acceptance into the Honors Program
Scientific concepts of nutrition related to the function of nutrients and current health issues with emphasis on individual needs. Topics include: functions and sources of nutrients; scientific principles to analyze and evaluate nutrition information; Dietary Guidelines and current nutrition recommendations; digestion, absorption, and metabolism; health, fitness, and disease; and nutrition in the life span. Students will record their diet, analyze its composition, and evaluate its nutrient content. Course is appropriate for health science majors. An honors course designed to provide an enriched experience. Students may not receive credit for both NF 25 and NF 25H.

NF 28 — Cultural and Ethnic Foods 3 Units Degree Applicable, CSU, UC
54 hours lecture
Prerequisite: Eligibility for ENGL 88
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, and sanitation and safety practices.

NF 30 — Food Science Technologies 3 Units Degree Applicable, CSU
54 hours lecture
Prerequisite: Eligibility for ENGL 88 Eligibility for MATH 50
Food chemistry, food processing and technology and how these affect 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 81 — Cooking for Your Heart and Health 1 Unit Not Degree Applicable
(May be taken for option of letter grade or Pass/No Pass)
12 hours lecture
20 hours lab
Prerequisite: HRM 52 or NF 20 or NF 10 or NF 25
Advisory: Basic food preparation knowledge, skills, and experience
Principles and techniques of healthful food preparation and investigation of chronic disease prevention through dietary means. Includes laboratory experience in preparation of healthful foods and meals. Basic food preparation knowledge, skills, and experience is advised. Off-campus meetings may be required.

NF 82 — Vegetarian Cuisine 1 Unit Not Degree Applicable
(May be taken for option of letter grade or Pass/No Pass)
12 hours lecture
20 hours lab
Prerequisite: HRM 52 or NF 10 or NF 20 or NF 25
Principles and techniques of vegetarian food preparation and investigation of issues related to vegetarian eating practices. Includes laboratory experience in preparation of vegetarian foods and meals. Basic food preparation knowledge, skills, and experience advised. Off-campus meetings may be required.

NF 91 — Work Experience in Nutrition and Dietetics 1 to 3 Units Not Degree Applicable
(May be taken for Pass/No Pass only)
60 to 225 hours lab
Prerequisite: Eligibility for ENGL 88
Provides students with on-the-job experience in an approved worksite which is related to classroom-based learning. A minimum of 75 paid or 60 unpaid clock hours per semester of supervised work in a clinical, community, or long-term nutrition facility is required for each unit of credit. It is recommended that the hours per week be equally distributed throughout the semester. Work experience placement is not guaranteed, but assistance is provided by faculty. Instructor approval required.

OCEANOGRAPHY

OCEA 10 — Introduction to Oceanography 3 Units Degree Applicable, CSU, UC
54 hours lecture
Geological, chemical, physical, and biological aspects of the Earth's ocean. Plate tectonics, phyisography of ocean basins and continental margins, ocean sediment, atmosphere and ocean circulation, waves and tides, coasts, and marine ecology. The companion Oceanography Lab (OCEA 10L) is recommended for students needing a lab to transfer to a four-year college/university. Field trips are required.

OCEA 10H — Introduction to Oceanography - Honors 3 Units Degree Applicable, CSU, UC
54 hours lecture
Prerequisite: Acceptance into the Honors Program
An honors course designed to provide an enriched experience. Introduces the geological, chemical, physical, and biological aspects of the Earth's ocean. Topics include plate tectonics, physiography of ocean basins and continental margins, ocean sediment, atmosphere and ocean circulation, waves and tides, coasts, and marine ecology. The companion Oceanography Lab (OCEA 10L) is recommended for students needing a lab to transfer to a 4-year college/university. Field trips are required. Students may not receive credit for both OCEA 10 and OCEA 10H.

OCEA 10L — Introduction to Oceanography Laboratory 1 Unit Degree Applicable, CSU, UC
54 hours lab
Corequisite: OCEA 10 or OCEA 10H (May have been taken previously)
Laboratory applications and problem-solving in oceanography, including related aspects of geology, meteorology, and marine biology. A hands-on approach to the marine environment and oceanic processes. Recommended for students needing a lab to transfer to a 4-year college/university.

PHILOSOPHY

PHIL 3 — Introduction to Logic 3 Units Degree Applicable, CSU, UC
54 hours lecture
Prerequisite: Eligibility for ENGL 88
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 — Introduction to Logic - Honors 3 Units Degree Applicable, CSU, UC
54 hours lecture
Prerequisite: Acceptance into the Honors Program
An honors course is designed to provide an enriched experience. Students may not receive credit for both PHIL 3 and PHIL 3H.

PHIL 5 — Introduction to Philosophy 3 Units (C-ID PHIL 100) Degree Applicable, CSU, UC
54 hours lecture
Prerequisite: Eligibility for ENGL 88
Philosophical ideas concerning knowledge, reality, and values. Topics will include the sources and limits of knowledge, and the nature of reality. Other topics may include the nature of self, truth, ethics, religion, science, language, beauty and art, political theory, and mind.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Units</th>
<th>Course Description</th>
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<tbody>
<tr>
<td>PHIL 5H</td>
<td>Introduction to Philosophy - Honors</td>
<td>3</td>
<td>Degree Applicable, CSU, UC</td>
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<tr>
<td></td>
<td>54 hours lecture</td>
<td></td>
<td>Prerequisite: Acceptance into the Honors Program</td>
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<tr>
<td></td>
<td>Philosophical ideas concerning knowledge, reality, and values. Topics will include the sources and limits of knowledge, and the nature of reality. Other topics may include the nature of self, truth, ethics, religion, science, language, beauty and art, political theory, and mind. An honors course is designed to provide an enriched experience. Students may not receive credit for both PHIL 5 and PHIL 5H.</td>
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<tr>
<td>PHIL 8</td>
<td>Critical Thinking</td>
<td>3</td>
<td>Degree Applicable, CSU, UC</td>
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<td></td>
<td>54 hours lecture</td>
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<td>Effective use of critical thinking in contemporary living, including recognizing faulty arguments, the usefulness of validity and truth, identifying and avoiding common fallacies in thinking.</td>
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<tr>
<td>PHIL 9</td>
<td>Critical Analysis and Writing</td>
<td>3</td>
<td>Degree Applicable, CSU, UC</td>
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<td></td>
<td>54 hours lecture</td>
<td></td>
<td>Prerequisite: ENGL 1A or ENGL 1AH</td>
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<tr>
<td></td>
<td>Function and use of formal and informal logic, argument, critical evaluation, and language in written composition.</td>
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<tr>
<td>PHIL 9H</td>
<td>Critical Analysis and Writing - Honors</td>
<td>3</td>
<td>Degree Applicable, CSU, UC</td>
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<td></td>
<td>54 hours lecture</td>
<td></td>
<td>Prerequisite: Acceptance into the Honors Program</td>
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<tr>
<td></td>
<td>Function and use of formal and informal logic, argument, critical evaluation, and language in written composition. An honors course is designed to provide an enriched experience. Students may not receive credit for both PHIL 9 and PHIL 9H.</td>
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<tr>
<td>PHIL 10</td>
<td>Introduction to Ethics</td>
<td>3</td>
<td>Degree Applicable, CSU, UC</td>
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<td></td>
<td>54 hours lecture</td>
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<td>Prerequisite: Eligibility for ENGL 1A</td>
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<td></td>
<td>Concepts of morality and values, representative ethical theories, and applications to moral problems.</td>
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<tr>
<td>PHIL 12H</td>
<td>Introduction to Ethics - Honors</td>
<td>3</td>
<td>Degree Applicable, CSU, UC</td>
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<td></td>
<td>54 hours lecture</td>
<td></td>
<td>Prerequisite: Acceptance into the Honors Program</td>
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<td></td>
<td>Concepts of morality and values, representative ethical theories, and applications to moral problems. An honors course is designed to provide an enriched experience. Students may not receive credit for both PHIL 12 and PHIL 12H.</td>
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<tr>
<td>PHIL 12</td>
<td>Introduction to Ethics</td>
<td>3</td>
<td>Degree Applicable, CSU, UC</td>
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<td></td>
<td>54 hours lecture</td>
<td></td>
<td>Prerequisite: Eligibility for ENGL 1A</td>
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<tr>
<td></td>
<td>Concepts of morality and values, representative ethical theories, and applications to moral problems.</td>
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<tr>
<td>PHIL 15</td>
<td>Major World Religions</td>
<td>3</td>
<td>Degree Applicable, CSU, UC</td>
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<tr>
<td></td>
<td>54 hours lecture</td>
<td></td>
<td>Prerequisite: Eligibility for ENGL 1A</td>
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<td>History, doctrines, and practices of the world’s major and enduring religions. Religion is approached as the expression of one’s ultimate concern as a means of understanding the historic and ideological foundations and aspirations of the peoples of the world. The following (or more) religions are presented and examined both appreciatively and critically: Hinduism, Buddhism, Taoism, Confucianism, Judaism, Christianity, and Islam including those of East Asia, India, and the Middle East. Off-campus assignments are required.</td>
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<tr>
<td>PHIL 15H</td>
<td>Major World Religions - Honors</td>
<td>3</td>
<td>Degree Applicable, CSU, UC</td>
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<td></td>
<td>54 hours lecture</td>
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<td>Prerequisite: Acceptance into the Honors Program</td>
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<td>History, doctrines, and practices of the world’s major and enduring religions. Religion is approached as the expression of one’s ultimate concern as a means of understanding the historic and ideological foundations and aspirations of the peoples of the world. The following (or more) religions are presented and examined both appreciatively and critically: Hinduism, Buddhism, Taoism, Confucianism, Judaism, Christianity, and Islam including those of East Asia, India, and the Middle East. Off-campus assignments are required. An honors course is designed to provide an enriched experience. Students may not receive credit for both PHIL 15 and PHIL 15H.</td>
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<tr>
<td>PHIL 20A</td>
<td>History of Ancient Philosophy</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: Eligibility for ENGL 1A</td>
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<td>Major philosophers and philosophical ideas from pre-Socratic to medieval times. Emphasis on the development of Greek philosophy from the pre-Socratics through Aristotle including Hellenistic, Roman, Medieval, and non-Western thinkers.</td>
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<tr>
<td>PHIL 20AH</td>
<td>History of Ancient Philosophy - Honors</td>
<td>3</td>
<td>Degree Applicable, CSU, UC</td>
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<td></td>
<td>54 hours lecture</td>
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<td>Prerequisite: Acceptance into the Honors Program</td>
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<tr>
<td>PHIL 20B</td>
<td>History of Modern Philosophy</td>
<td>3</td>
<td>Degree Applicable, CSU, UC</td>
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<td></td>
<td>54 hours lecture</td>
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<td>Prerequisite: Eligibility for ENGL 1A</td>
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<td>Major philosophers and philosophical ideas from the Renaissance to the present, with an emphasis on Western philosophy.</td>
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<tr>
<td>PHIL 20BH</td>
<td>History of Modern Philosophy - Honors</td>
<td>3</td>
<td>Degree Applicable, CSU, UC</td>
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<td></td>
<td>54 hours lecture</td>
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<td>Prerequisite: Acceptance into the Honors Program</td>
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<td>Major philosophers and philosophical ideas from the Renaissance to the present, with an emphasis on Western philosophy. An honors course designed to provide an enriched experience. Students may not receive credit for both PHIL 20B and PHIL 20BH.</td>
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<tr>
<td>PHIL 99</td>
<td>Special Projects Philosophy</td>
<td>2</td>
<td>Degree Applicable, CSU</td>
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<td></td>
<td>36 hours lecture</td>
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<td>Offers students recognition for their academic interests in philosophy and the opportunity to explore the discipline of philosophy to greater depth. The content of the course and the methods of study vary from semester to semester and depend on the particular project under consideration.</td>
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<tr>
<td>PHOT 1</td>
<td>Laboratory Studies: Black and White Photography</td>
<td>1</td>
<td>Degree Applicable</td>
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<tr>
<td></td>
<td>54 hours lab</td>
<td></td>
<td>(May be taken for Pass/No Pass only)</td>
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<td></td>
<td>Corequisite: PHOT 10 (may have been taken previously)</td>
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<td></td>
<td>Extended black and white laboratory experiences to supplement those available in the regular program. Provides students the opportunity to pursue more advanced projects and experiments.</td>
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<tr>
<td>PHOT 1A</td>
<td>Laboratory Studies: Beginning Black and White Photography</td>
<td>1</td>
<td>Degree Applicable</td>
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<tr>
<td></td>
<td>54 hours lab</td>
<td></td>
<td>(May be taken for Pass/No Pass only)</td>
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<tr>
<td></td>
<td>Corequisite: PHOT 10</td>
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<tr>
<td></td>
<td>Extended black and white laboratory experiences to improve skills through further instruction and practice, as well as pursue more advanced projects and experiments.</td>
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</tbody>
</table>
### PHOT 1B — Laboratory Studies: Advanced Black and White Photography

1 Unit

Degree Applicable

(May be taken for Pass/No Pass only)

54 hours lab

Corequisite: PHOT 11 or PHOT 12 or PHOT 17

Extended advanced black and white laboratory experiences with medium and large format cameras to improve skills and pursue more advanced photographic printing, processing, and enlarging techniques.

### PHOT 1C — Laboratory Studies: Studio Photography

1 Unit

Degree Applicable

(May be taken for Pass/No Pass only)

54 hours lab

Corequisite: PHOT 9 or PHOT 19 or PHOT 24

Extended studio photography experiences to supplement those available through the regular program. Provides students the opportunity to improve skills through further instruction and practice, as well as pursue more advanced projects and experiments.

### PHOT 1D — Laboratory Studies: Computer Applications

1 Unit

Degree Applicable

(May be taken for Pass/No Pass only)

54 hours lab

Corequisite: PHOT 9 or PHOT 19 or PHOT 24

Extended computer laboratory experiences to supplement those available in the regular program. Provides students the opportunity to improve skills through further instruction and practice, as well as pursue more advanced projects and experiments.

### PHOT 5 — Digital Cameras and Composition

1 Unit

Degree Applicable

18 hours lecture

Use of digital cameras and image editing software to create well-composed, quality photographs for use in Graphic Design and other applications. Camera required after first class meeting. Field trip required.

### PHOT 9 — Digital Image Editing for Photographers

3 Units

Degree Applicable

36 hours lecture

54 hours lab

Corequisite: PHOT 10 (may have been taken previously)

Software and techniques including digital workflow practices, digital image editing, enhancing and retouching methods commonly used in photography.

### PHOT 10 — Basic Digital and Film Photography

3 Units

Degree Applicable, CSU, UC

36 hours lecture

54 hours lab

The basic mechanical, optical, and chemical principles of photography, including digital image systems. Laboratory experience involves problems related to camera and image output techniques.

### PHOT 11 — Intermediate Photography

4 Units

Degree Applicable

36 hours lecture

108 hours lab

Prerequisite: PHOT 10

Current professional techniques and studio lighting. Includes studio and field assignments related to problems encountered while professionally photographing people and products. Topics include medium and large format film and digital cameras, computer basics for professional photographers and studio lighting. Students must furnish a digital single lens reflex (DSLR) camera. Field trips may be required.

### PHOT 12 — Photographic Alternatives

3 Units

Degree Applicable, CSU, UC

36 hours lecture

54 hours lab

Prerequisite: PHOT 10

Alternative photographic processes. Instant films: Lifts and transfers, specialized lighting, stain toning, emulsion coating, scangraphy and handmade camera construction will be applied to produce images not considered common to making photographic prints.

### PHOT 13 — Photocommunication

3 Units

Degree Applicable, CSU

36 hours lecture

54 hours lab

Prerequisite: PHOT 10

Professional illustrative, editorial and advertising fashion photography. Studio and location production in digital capture. Business aspects of operation and working with clients are presented. Off-campus assignments may be required.

### PHOT 14 — Commercial Lighting

3 Units

Degree Applicable, CSU

36 hours lecture

54 hours lab

Prerequisite: PHOT 10

Advisory: PHOT 11

Use of studio equipment, and studio and location lighting techniques used in all aspects of commercial photographic applications. Field trips may be required.

### PHOT 15 — History of Photography

3 Units

Degree Applicable, CSU, UC

54 hours lecture

Prerequisite: Eligibility for ENGL 68

Survey of the history of photography from circa 1839 to the present. An introduction to concepts of photographic representation and their impact on society.

### PHOT 16 — Fashion Photography

3 Units

Degree Applicable

36 hours lecture

54 hours lab

Prerequisite: PHOT 10

Professional illustrative, editorial and advertising fashion photography. Studio and location production in digital capture. Business aspects of operation and working with clients are presented. Off-campus assignments may be required.

### PHOT 17 — Photocommunication

3 Units

Degree Applicable

36 hours lecture

54 hours lab

Prerequisite: PHOT 10

Affects that camera controls have on visual communication with photographs. Includes message enhancement using optical and digital controls, depth of field, lenses, lighting, composition, books, black and white vs. color images, and documentary and journalistic styles.

### PHOT 18 — Portraiture and Wedding Photography

3 Units

Degree Applicable

36 hours lecture

54 hours lab

Prerequisite: PHOT 10

Advisory: PHOT 11

Professional studio and field techniques for portrait and wedding photography. Off-campus assignment or field trips may be required.

### PHOT 19 — Digital Color Management

3 Units

Degree Applicable

36 hours lecture

54 hours lab

Prerequisite: PHOT 10 AND (PHOT 9 OR ARTC100)

Digital color management software and hardware skills, techniques and digital workflow practices commonly used in photography.

### PHOT 20 — Color Photography

3 Units

Degree Applicable

36 hours lecture

54 hours lab

Prerequisite: PHOT 10

Fundamentals of photographic color theory, editing, schemes and presentation of color photographs. Applying color psychology principles and HDR to enhance image messages.
COURSE DESCRIPTIONS

PHOT 21 — Exploring Color Photography  3 Units  Degree Applicable
36 hours lecture
54 hours lab
Prerequisite: PHOT 20
Use of color principles as they relate to commercial and artistic styles and innovative use of color applications. Includes lighting and unusual techniques, exaggerated and unique color schemes, light-painting, lighting effects, high dynamic range effects, and oversize output.

PHOT 24 — Advanced Digital Image Editing for Photographers  3 Units  Degree Applicable
36 hours lecture
54 hours lab
Prerequisite: PHOT 10 AND (PHOT 9 OR GRAP 10 OR ARTC 100)
Advanced software and techniques for digital image editing, archiving, and retouching used in commercial photography.

PHOT 25 — Digital Capture Workflow  3 Units  Degree Applicable
36 hours lecture
54 hours lab
Prerequisite: PHOT 11
Advanced application of digital capture and workflow using DSLR medium and large format digital camera systems and software to produce high-quality digital files as a photographer or as a digital photographic technician. Field trips may be required.

PHOT 26 — Video for Photographers  3 Units  Degree Applicable
36 hours lecture
54 hours lab
Prerequisite: PHOT 11 and PHOT 9
Corequisite: PHOT 14 (may have been taken previously)
Teaches advanced photography students how to create moving images for commercial applications using DSLR cameras. Using principles of framing and composition, storyboarding, production, camera, sound, and editing techniques, students will produce a commercial advertising reel representing their work. Field trips may be required.

PHOT 28 — Photography Portfolio Development  3 Units  Degree Applicable
36 hours lecture
54 hours lab
Prerequisite: PHOT 10 and PHOT 11 and PHOT 20 and (PHOT 16 or PHOT 18)
Development of a photography portfolio and marketing materials for use in job application or gallery exhibition purposes. Field trips may be required.

PHOT 29 — Studio Business Practices for Commercial Artists  3 Units  Degree Applicable
54 hours lecture
Studio business practices for commercial artists. Small business operations, pricing services based on the licensing business model, copyright basics, project production, and estimating and invoicing. Field trips may be required.

PHOT 30 — Advertising Photography  3 Units  Degree Applicable
36 hours lecture
54 hours lab
Prerequisite: PHOT 11 and PHOT 20
Advisory: PHOT 14
Overview of the commercial photographic industry including specialties and styles. Field trips may be required.

PHOT 98 — Work Experience in Photography  1 to 3 Units  Degree Applicable
(May be taken for Pass/No Pass only)
75 to 225 hours lab
Prerequisite: Compliance with Work Experience regulations as designated in the College Catalog
Provides students with on-the-job experience in professional photography and related areas in an approved worksite to strengthen and broaden skills in the workplace. A minimum of 60 non-paid clock hours per semester is required for each unit of credit. It is recommended that the hours per week are equally distributed throughout the semester. Students who repeat this course will improve skills through further instruction and practice.

PHOT 99 — Special Projects in Photography  2 Units  Degree Applicable
36 hours lecture
Prerequisite: PHOT 10 and approval by instructor
In order to offer selected students recognition for their academic interests and ability and the opportunity to explore their disciplines to greater depth, the various departments from time to time offer Special Projects courses. The content of each course and the methods of study vary from semester to semester and depend on the particular project under consideration. Students must have an instructor’s authorization before enrolling in this course. Students repeating this course will make individual contracts of a more advanced nature with the instructor to ensure that proficiencies are enhanced.

PHOT SC 3 — Energy Science  4 Units  Degree Applicable, CSU, UC
54 hours lecture
54 hours lab
Prerequisite: Eligibility for MATH 100 and Eligibility for ENGL 68
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: fossil fuels, nuclear energy, hydro, wind, solar energy, biofuels, and energy distribution and storage. Field trips required.

PHOT 28 — Photography Portfolio Development  3 Units

PHOT 29 — Studio Business Practices for Commercial Artists  3 Units

PHOT 30 — Advertising Photography  3 Units

PHOT 98 — Work Experience in Photography  1 to 3 Units

PHOT 99 — Special Projects in Photography  2 Units

PHYS 1 — Physics  4 Units  Degree Applicable, CSU, UC
54 hours lecture
54 hours lab
Prerequisite: Eligibility for MATH 100
Discovery of concepts of physics by working through guided activities in a workshop style. Topics include light and geometrical optics, electricity and DC circuits, magnetism, linear and rotational motion, forces, momentum, energy, harmonic motion and waves.

PHYS 2AG — General Physics  4 Units (C-ID PHYS 105)
54 hours lecture
54 hours lab
Prerequisite: MATH 150
The basic principles of physics. Includes theory, applications, laboratory, and problem solving in mechanics, heat, fluids, and wave motion.
Course Descriptions

- **PHYS 2BG — General Physics** 4 Units
  (C-ID PHYS 110) Degree Applicable, CSU, UC
  54 hours lecture
  54 hours lab
  Prerequisite: PHYS 2AG or equivalent
  Continuation of Physics 2AG. Includes electricity and magnetism (including DC and AC circuits,) geometrical and physical optics, relativity, quantum physics, atomic and nuclear physics. Laboratory includes use of computers to analyze data and simulate circuitry.

- **PHYS 4A — Engineering Physics** 5 Units
  (C-ID PHYS 205) Degree Applicable, CSU, UC
  72 hours lecture
  54 hours lab
  Prerequisite: PHYS 2AG
  Corequisite: MATH 181 (May have been taken previously)
  Calculus-based course. Study linear and rotational motion, forces, momentum, work, energy, oscillations, gravitation and waves. Includes laboratory experience with significant use of computers for data acquisition and analysis.

- **PHYS 4B — Engineering Physics** 5 Units
  (C-ID PHYS 205) Degree Applicable, CSU, UC
  72 hours lecture
  54 hours lab
  Prerequisite: PHYS 4A
  Corequisite: MATH 280 (May have been taken previously)
  Calculus-based course covering 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. Continuation of Physics 4A.

- **PHYS 4C — Engineering Physics** 5 Units
  (C-ID PHYS 215) Degree Applicable, CSU, UC
  72 hours lecture
  54 hours lab
  Prerequisite: PHYS 4B
  Calculus-based course covering 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. Continuation of Physics 4A and 4B.

- **PHYS 6A — General Physics with Calculus** 5 Units
  Degree Applicable, CSU
  72 hours lecture
  54 hours lab
  Prerequisite: MATH 180
  First semester of a two-semester calculus-based physics course for life science majors. Includes statics and dynamics of particles and rigid bodies, Newton’s laws of motion, conservation principles, rotational motion, simple harmonic motion, wave motion, heat and sound, introduction to hydrostatics and hydrodynamics with an emphasis on life science topics.

- **PHYS 6B — General Physics with Calculus** 5 Units
  Degree Applicable, CSU
  71 hours lecture
  48 hours lab
  Prerequisite: PHYS 6A
  Second semester of the calculus-based physics course for life science majors. Topics include electricity, magnetism, optics, relativity, atomic and nuclear physics with an emphasis on life science applications.

- **PHYS 99 — Special Projects in Physics** 2 Units
  Degree Applicable, CSU
  36 hours lecture
  Corequisite: PHYS 1 or PHYS 2AG or PHYS 4A (May have been taken previously)
  In order to offer selected students recognition for their academic interests and ability, and the opportunity to explore their disciplines to greater depth, the various departments from time to time offer Special Projects courses. The content of each course and the methods of study vary from semester to semester and depend on the particular project under consideration. Student must have instructor’s authorization before enrolling in this class. Field trips may be required as part of this course.

### POLITICAL SCIENCE

- **POLI 1 — Political Science** 3 Units
  (C-ID POLS 110) Degree Applicable, CSU, UC
  54 hours lecture
  Prerequisite: Eligibility for ENGL 68
  Principles and problems of government with particular emphasis on national government in the United States. This course satisfies the requirement for a course in the Constitution of the United States and the principles of State and local government as required by Title 5 of the California Administrative Code.

- **POLI 1H — Political Science - Honors** 3 Units
  (C-ID POLS 110) Degree Applicable, CSU, UC
  54 hours lecture
  Prerequisite: Acceptance into the Honors Program
  Principles and problems of government with particular emphasis on national government in the United States. This course satisfies the requirement for a course in the Constitution of the United States and the principles of State and local government as required by Title 5 of the California Administrative Code. An honors course designed to provide an enriched experience. Students may not receive credit for both POLI 1 and POLI 1H.

- **POLI 2 — Comparative Politics** 3 Units
  (C-ID POLS 130) Degree Applicable, CSU, UC
  54 hours lecture
  Prerequisite: POLI 1 or POLI 1H
  Comparative analysis of different political systems, including political institutions, processes, policies, histories and the environments in which they occur.

- **POLI 5 — Political Theory I - Ancient to Contemporary** 3 Units
  Degree Applicable, CSU, UC
  54 hours lecture
  Prerequisite: Eligibility for ENGL 1A
  Ancient to contemporary theories of political institutions, social change, and social dynamics.

- **POLI 7 — Political Theory II — Early Modern to Contemporary** 3 Units
  Degree Applicable, CSU, UC
  54 hours lecture
  Prerequisite: POLI 1
  Advisory: Eligibility for ENGL 1A
  Major political philosophers and theories from the late nineteenth century to the present. Intended to prepare students majoring in political science for further study in the discipline by providing adequate background preparation in political philosophy.

- **POLI 9 — Introduction to International Relations** 3 Units
  (C-ID POLS 140) Degree Applicable, CSU, UC
  54 hours lecture
  Prerequisite: Eligibility for ENGL 68
  Historical and political background of world politics and core international relations theories and concepts. Attention is given to the historical development of world politics, to fundamental theories and concepts in International Relations, and to an examination of international, national, sub-national, and transnational actors and their institutions, interactions, and processes.

- **POLI 10 — Environmental Politics** 3 Units
  Degree Applicable, CSU, UC
  54 hours lecture
  Advisory: Eligibility for ENGL 1A AND POLI 1 or POLI 1H
  Global environmental problems including an analysis of political theories and comparative policies in the emerging field of environmental politics.

- **POLI 25 — Latino Politics in the United States** 3 Units
  Degree Applicable, CSU, UC
  54 hours lecture
  Prerequisite: Eligibility for ENGL 68
  Latino political thought and action and how it is influenced and shaped by American institutions at the state, local and national levels.
COURSE DESCRIPTIONS

PSYCHOLOGY

**PSYC 1A — Introduction to Psychology** 3 Units
(C-ID PSY 110)
Degree Applicable, CSU, UC
54 hours lecture
Prerequisite: Eligibility for ENGL 1A
Surveys psychological approaches to the study of behavior and mental processes. Topics include the history of psychology, psychological research methods, biological psychology, sensation and perception, consciousness, learning, memory, cognition, intelligence, and language, lifespan development, motivation and emotion, applied psychology (e.g., gender and sexuality and stress and health), social psychology, personality, psychological disorders, and psychological treatment.

**PSYC 1AH — Introduction to Psychology - Honors** 3 Units
(C-ID PSY 110)
Degree Applicable, CSU, UC
54 hours lecture
Prerequisite: Acceptance into the Honors Program
Surveys psychological approaches to the study of behavior and mental processes. Topics include the history of psychology, psychological research methods, biological psychology, sensation and perception, consciousness, learning, memory, cognition, intelligence, and language, lifespan development, motivation and emotion, applied psychology (e.g., gender and sexuality and stress and health), social psychology, personality, psychological disorders, and psychological treatment. An honors course designed to provide an enriched experience. Students may not receive credit for both PSYC 1A and PSYC 1AH.

**PSYC 1B — Biological Psychology** 3 Units
(C-ID PSY 150)
Degree Applicable, CSU, UC
54 hours lecture
Prerequisite: PSYC 1A or PSYC 1AH
Biological mechanisms of behavior. Includes evolution and genetics with emphasis on neuronal and synaptic transmission. Develops a conceptual framework and awareness of the scientific method. Stresses specific methods of investigation for the discipline.

**PSYC 1C — Psychology of Reasoning and Problem Solving** 3 Units
(C-ID PSY 205B)
Degree Applicable, CSU, UC
54 hours lecture
Prerequisite: Eligibility for ENGL 68
The components involved in problem solving and reasoning from a psychological perspective. This course assesses many facets of the critical thinking process, including perception, learning (classical and operant conditioning, behavior modification, observation, cognitive models), memory, logical fallacies, heuristics, cognitive distortions, decision-making processes, argument, and judgment. This course also contains a practical application element involving systematic introspection and analysis of one's cognitive processes.

**PSYC 1D — Psychology of Social, Personality, and Psychological Disorders** 3 Units
Degree Applicable, CSU, UC
54 hours lecture
Prerequisite: Eligibility for ENGL 68
Major classifications of psychiatric disorders, their causation, and psychological treatment. An honors course designed to provide an enriched experience. Students may not receive credit for both PSYC 1A and PSYC 1AH.

**PSYC 1E — Developmental Psychology** 3 Units
(C-ID PSY 180)
Degree Applicable, CSU, UC
54 hours lecture
Prerequisite: Eligibility for ENGL 1A
Psychological principles of human development across the lifespan, it pertains to the child’s psychological experiences. Includes psychological disorders and therapies specific to children and adolescents. This course does not fulfill Title 22 requirement for child development majors.

**PSYC 1F — Introduction to Human Services** 3 Units
Degree Applicable, CSU, UC
54 hours lecture
Prerequisite: PSYC 1A or PSYC 1AH or SOC 1 or SOC 1H
History, philosophy, and development of human services in America. Explores careers in human services, self-exploration in matching personal and professional interests to entry levels of human services employment.

**PSYC 1G — Abnormal Psychology** 3 Units
(C-ID PSY 120)
Degree Applicable, CSU, UC
54 hours lecture
Prerequisite: PSYC 1A or PSYC 1AH
Application of principles of general psychology to the field of psychopathology. Major classifications of psychiatric disorders, their causes and treatment modalities. Includes theoretical perspectives used in abnormal psychology.

**PSYC 1H — Introduction to Research Methods in Psychology** 4 Units
Degree Applicable, CSU, UC
54 hours lecture
Prerequisite: PSYC 1A or PSYC 1AH and PSYC 10 or MATH 110 or MATH 110H
Research methods in psychology. Includes systematic observation, research design, survey development, execution and analysis of experimental and other research methods, and American Psychological Association (APA) publication style writing.

**PSYC 1I — Statistics for the Behavioral Sciences** 4 Units
Degree Applicable, CSU, UC
54 hours lecture
Prerequisite: PSYC 1A or SOC 1 and eligibility for MATH 110
Statistical principles of the behavioral sciences emphasizing research design, scales of measurement, distributions, graphing, descriptive statistics, measures of central tendency, measures of variability, t-test, independent and dependent t-tests, inferential statistics, confidence intervals, linear correlations and regression, and analysis of variance, including multivariate factorial designs and chi square analyses. Statistical analyses through the use of computerized statistical packages are interpreted through lab experience.
Course Descriptions

**PSYC 26 — Psychology of Sexuality** 3 Units
(C-ID PSY 130) Degree Applicable, CSU, UC
54 hours lecture
Prerequisite: Eligibility for ENGL 68
Explores the factors involved in establishing and maintaining intimate sexual relationships. The focus of the course is on the findings of social psychologists concerning sexuality and love relationships in our culture.

**PSYC 33 — Psychology for Effective Living** 3 Units
(C-ID PSY 115) Degree Applicable, CSU
54 hours lecture
Emphasis on comprehension and application of psychological principles to interpersonal relationships, personal growth, sexuality, vocation, marriage, parenting, aging, and other circumstances encountered in the life cycle. Considers personality development and psychological disorders as well as therapeutic approaches.

**PSYC 09 — Special Projects in Psychology** 1 to 3 Units
Degree Applicable, CSU
18 to 54 hours lecture
Prerequisite: PSYC 1A or PSYC 1AH and Eligibility for ENGL 1A or ENGL 1AH
Advisory: READ 100
Offers selected students recognition for their academic interest in psychology and the opportunity to explore the discipline of psychology in greater depth. The content of the course and the methods of study vary from semester to semester and depend on the particular project under consideration.

**RADIO TELEVISION**

**R-TV 01 — Introduction to Electronic Media** 3 Units
Degree Applicable, CSU
54 hours lecture
Prerequisite: Eligibility for ENGL 68
History, structure, function, economics, content and evolution of radio, television, film, and the internet, including traditional and mature formats as well as emerging electronic media delivery systems. The social, political, regulatory, ethical and occupational impact of the electronic media will also be studied.

**R-TV 02 — On-Air Personality Development** 3 Units
Degree Applicable, CSU
54 hours lecture
Corequisite: R-TV 01 and R-TV 11A (May have been taken previously)
Developing a broadcast voice, style and understanding of the business for all areas of the industry, including disc jockey, news caster and voice over artist. Developing content for on-air shows. Review the basics of the production studio and its components.

**R-TV 03 — Sportscasting and Reporting** 1.5 Units
Degree Applicable
54 hours lecture
Corequisite: R-TV 01 and R-TV 11A (May have been taken previously)
Sportscasting, interviewing, field reporting and play-by-play for radio and television. Legalities and ethics of covering sports, and how to work with professional sports teams and equipment technicians. Practical experience will be provided through coverage of Mt. SAC’s athletic teams.

**R-TV 04 — Broadcast News Field Reporting** 3 Units
Degree Applicable
54 hours lecture
Corequisite: R-TV 01, R-TV 05, and R-TV 11A (May have been taken previously)
Techniques used to research and cover a variety of news events including working with police and other emergency personnel, interviewing techniques and story developments. Emphasis will be placed on legal and ethical issues concerning news coverage.

**R-TV 05 — Radio-TV Newswriting** 3 Units
Degree Applicable, CSU
54 hours lecture
Corequisite: R-TV 01 (May have been taken previously)
Writing, editing and reporting radio and TV news, utilizing the Associated Press Wire Service. Rewriting news wire copy as well as create stories from interviews and from covering news events, including the incorporation and selection of sound bites from actualities. Emphasis on factual and concise content and the ability to work under deadline.

**R-TV 06 — Broadcast Traffic Reporting** 1.5 Units
Degree Applicable
54 hours lecture
Corequisite: R-TV 01 (May have been taken previously)
Preparation and delivery of traffic reports for radio and television, including anchored and airborne reports. Includes history and development of techniques involved in radio and television traffic reporting through lecture and hands-on practice. Interpretation and reading of police codes as they relate to traffic, accidents, and emergency situations including broadcast rules and liabilities as they apply to traffic reporting.

**R-TV 07A — Beginning Commercial Voice-Overs** 3 Units
Degree Applicable
54 hours lecture
Advisory: R-TV 01
Development of voices for radio and television commercials, character voices, narrations, and animation. Also covers auditioning, working with agents and agencies, and understanding voice-over contracts.

**R-TV 09 — Broadcast Sales and Promotion** 3 Units
Degree Applicable
54 hours lecture
Corequisite: R-TV 01 (May have been taken previously)
Strategies and legalities for creating commercial campaigns for radio and television including demographic targeting, marketing strategies and copywriting. Includes creation of contests and promotional campaigns.

**R-TV 10 — Radio Programming and Producer Techniques** 3 Units
Degree Applicable
54 hours lecture
Corequisite: R-TV 01 (May have been taken previously)
Programming, management and producing techniques for various radio stations formats such as music, news, talk, and sports.

**R-TV 11A — Beginning Radio Production** 3 Units
Degree Applicable, CSU
54 hours lecture
Corequisite: R-TV 01 (May have been taken previously)
Operation of standard radio production equipment for both tape-based and digital production utilizing ProTools technology. Production skills concentrate on the use of voice, music and sound effects as applied to a variety of broadcasting elements.

**R-TV 11B — Advanced Radio Production** 3 Units
Degree Applicable, CSU
54 hours lecture
Prerequisite: R-TV 11A
Techniques in non-linear recording, editing and mixing using Pro Tools technology as these skills apply to a variety of applications in the broadcasting industry. Develop mastery of the concepts and skills required to work in a professional radio studio environment.

**R-TV 14 — Media Aesthetics** 3 Units
Degree Applicable, CSU
54 hours lecture
Prerequisite: Eligibility for ENGL 68
Media aesthetics for television and film presentation. Stresses critical, theoretical and practical analysis. Material is presented from a producer/artist point of view and is intended for those pursuing a career in film, television, and other electronic visual media.

**R-TV 15 — Broadcast Law and Business Practices** 3 Units
Degree Applicable
54 hours lecture
Corequisite: R-TV 01 (May have been taken previously)
The broadcasting industry as a business. Legal and Federal Communications Commission (FCC) regulatory issues in broadcasting and developing media, as well as unions, contracts, negotiations, residuals, and mergers.
R-TV 17 — Internet Radio and Podcasting  
3 Units  
Degree Applicable

54 hours lecture  
Corequisite: R-TV 01 and R-TV 11A (May have been taken previously)

Internet broadcasting and podcasting including programming, announcing, promotions, and legal and copyright issues through the use of an actual Internet radio station.

R-TV 18 — Introduction to Screenwriting  
3 Units  
Degree Applicable, CSU

54 hours lecture  
Prerequisite: Eligibility for ENGL 1A

Screenwriting for television and motion picture production. Includes characterization, visualization, structure and form.

R-TV 19A — Beginning Video Production  
3 Units  
Degree Applicable, CSU

(May be taken for option of letter grade or Pass/No Pass)  
36 hours lecture  
54 hours lab  
Advisory: R-TV 14

Video production using studio, remote multicamera, and film-style techniques. Introduction to theory and practice in lighting, audio recording for video, basic directing and producing, editing software, and production of a short narrative-form video.

R-TV 19B — Advanced Video Production  
3 Units  
Degree Applicable, CSU

36 hours lecture  
54 hours lab  
Prerequisite: R-TV 19A

Video production techniques emphasizing narrative storytelling, film-style aesthetics and production.

R-TV 20 — Television News Production  
3 Units  
Degree Applicable

36 hours lecture  
54 hours lab  
Prerequisite: R-TV 05 or R-TV 19A

TV newscast production using writing, announcing, production, equipment, direction, graphics, and editing skills both in and out of the studio.

R-TV 21 — Remote Multicamera Production  
3 Units  
Degree Applicable

36 hours lecture  
54 hours lab  
Prerequisite: R-TV 19A

Remote video production using both multi-camera and single camera techniques. Topics include video engineering, directing, and remote production truck setup.

R-TV 22 — Editing for Film and Television  
3 Units  
Degree Applicable, CSU

54 hours lecture  
Aesthetics and use of editing software for film and television. Previous production experience recommended.

R-TV 23 — Reality Show Production  
3 Units  
Degree Applicable

36 hours lecture  
54 hours lab  
Prerequisite: R-TV 19A

Types and production of Reality Show television programs. Authoring and pitching of reality show concepts. Instruction in specific equipment skills in lighting, wireless multicamera shooting, editing and related skills. Includes production of a reality show.

R-TV 24 — American Film History  
3 Units  
Degree Applicable, CSU

54 hours lecture  
Prerequisite: Eligibility for ENG 1A

History of American film and filmmakers from 1895 to the present. Development and changes are examined in relation to historical, sociological, economic, political, cultural, artistic and technological contexts.

R-TV 25 — World Cinema  
3 Units  
Degree Applicable, CSU

54 hours lecture  
Prerequisite: Eligibility for ENG 1A

Cinema history using a global perspective, following the growth of cinema in key countries from their beginnings until the present day. Both national and multinational co-productions are explored. Provides critical methodology and practical tools for examining and interpreting international film movements and genres.

R-TV 28 — Introduction to Writing for Electronic Media  
3 Units  
Degree Applicable, CSU

54 hours lecture  
Prerequisite: Eligibility for ENGL 68

Conceptualize, structure and write dramatic and non-dramatic scripts for cinema, television and new media.

R-TV 31 — History of Radio DJs  
3 Units  
Degree Applicable

54 hours lecture  
Prerequisite: Approval by Instructor

Traces the history of music radio through study of the most influential disc jockeys in broadcasting history.

R-TV 32 — Radio - TV Internet Applications  
3 Units  
Degree Applicable

54 hours lecture  
Creating and managing material on radio, TV and movie websites such as cross-promoting on-air content and converting audio and video.

R-TV 35 — Pop Culture in the Media  
3 Units  
Degree Applicable

54 hours lecture  
Examines American Pop Culture and its various forms as it applies to the 1920s through the 1990s through the major fads and follies of those decades as reflected in and influenced by radio, TV, film.

R-TV 96A — Campus Radio Station Lab: Studio Procedures and Equipment Operations  
1 to 2 Units  
Degree Applicable

54 to 108 hours lab  
Prerequisite: RTV 01 and RTV 02 and RTV 11A

Experience in the operation of the college radio stations. Activities focus on studio equipment operation, station procedures and on-air techniques.

R-TV 96B — Campus Radio Station Lab: Disc Jockey  
1 to 2 Units  
Degree Applicable

54 to 108 hours lab  
Prerequisite: R-TV 96A

Participation in the college radio stations. Activities focus on developing Disc Jockey, News Anchor, and News Reporter skills.

R-TV 96C — Campus Radio Station Lab: Hosting  
1 to 2 Units  
Degree Applicable

54 to 108 hours lab  
Prerequisite: R-TV 96B

Participation in the college radio stations including individual show creation and execution as well as management skills.

R-TV 97A — Radio/Entertainment Industry Seminar  
1 Unit  
Degree Applicable

18 hours lecture  
Prerequisite: Approval by Instructor  
Corequisite: R-TV 97B

Evaluating professionalism and problem-solving techniques related to their internship experiences.

R-TV 97B — Radio/Entertainment Industry Internship  
1 Unit  
Degree Applicable

75 hours lab  
Prerequisite: Approval by Instructor  
Corequisite: R-TV 97A

On-the-job experience in the radio or entertainment industry in order to strengthen and broaden skills in the workplace. A minimum of 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.
Course Descriptions

**R-TV 99 — Radio/TV Special Projects**  
2 Units  
Degree Applicable  
36 hours lecture  
Prerequisite: Completion of six R-TV course units  
Students earn credit via a broadcasting or film course of study customized for the student. Instructor authorization is needed prior to enrollment.

**R-TV 100 — Work Experience in Film and Television 1 to 3 Units**  
Degree Applicable  
(May be taken for option of letter grade or Pass/No Pass)  
75 to 225 hours lab  
Prerequisite: Completion of 12 units of R-TV courses from among the following: R-TV 1, 14, 18A, 19B, 20, 21, 22, 23, taken at Mt. San Antonio College. Compliance with work experience regulations as designated in the college catalog. Provides students with on-the-job experience in the film or TV industry, related to classroom instruction, at an approved work site. A minimum of 60 unpaid or 75 paid hours of supervised work is required for each unit of credit.

**R-TV 101 — Work Experience in Broadcast Entertainment 1 to 2 Units**  
Degree Applicable  
(May be taken for Pass/No Pass only)  
75 to 150 hours lab  
Prerequisite: Completion of R-TV 01, R-TV 97A, R-TV 97B and any three other R-TV units, taken at Mt. San Antonio College. Compliance with Work Experience regulations as designated in the College Catalog. On-the-job experience at an approved work site in the Broadcast or Entertainment industries. A minimum of 60 unpaid or 75 paid hours of supervised work is required for each credit.

**RADIOLOGIC TECHNOLOGY**

**RAD 1A — Clinical Experience 1A**  
5 Units  
Degree Applicable, CSU  
(Include 36 hours lecture)  
Prerequisite: RAD 1A  
Clinical experience in the radiology department of affiliated hospitals under the supervision of a licensed radiologic technologist. Emphasis on upper and lower limbs, shoulder girdle, pelvis, chest, and abdomen. Health physical, background check, drug test, and CPR certification is required. Intended for students enrolled in Radiologic Technology Program. Designed to meet The Joint Review Committee on Education in Radiologic Technology (JRCERT) accreditation standards.

**RAD 1B — Clinical Experience 1B**  
3 Units  
Degree Applicable, CSU  
(Include 100 hours lab)  
Prerequisite: RAD 1A  
Clinical experience in the radiology department of affiliated hospitals under the supervision of a licensed radiologic technologist. Emphasis on upper and lower limbs, shoulder girdle, pelvis, chest, and abdomen. Health physical, background check, drug test, and CPR certification is required. Intended for students enrolled in Radiologic Technology Program. Designed to meet The Joint Review Committee on Education in Radiologic Technology (JRCERT) accreditation standards.

**RAD 1C — Clinical Experience 1C**  
3 Units  
Degree Applicable, CSU  
(Include 100 hours lab)  
Prerequisite: RAD 1A  
Clinical experience in the radiology department of affiliated hospitals under the supervision of a licensed radiologic technologist. Emphasis on upper and lower limbs, shoulder girdle, pelvis, chest, and abdomen. Health physical, background check, drug test, and CPR certification is required. Intended for students enrolled in Radiologic Technology Program. Designed to meet The Joint Review Committee on Education in Radiologic Technology (JRCERT) accreditation standards.

**RAD 2A — Clinical Experience 2A**  
5 Units  
Degree Applicable, CSU  
(Include 256 hours lab)  
Prerequisite: RAD 1B  
Corequisite: RAD 62A, RAD 62B, and RAD 62C  
Clinical experience in the radiology department of affiliated hospitals under the supervision of a licensed radiologic technologist. Emphasis on special and elective procedures. Health physical, background check, drug test, and CPR certification is required. Intended for students enrolled in Radiologic Technology Program. Designed to meet The Joint Review Committee on Education in Radiologic Technology (JRCERT) accreditation standards.

**RAD 2B — Clinical Experience 2B**  
3 Units  
Degree Applicable, CSU  
(Include 144 hours lab)  
Prerequisite: RAD 2A  
Clinical experience in the radiology department of affiliated hospitals under the supervision of a licensed radiologic technologist. Emphasis on cervical spine, cervical spine trauma, thoracic spine, lumbar spine, ribs, paranasal sinuses, esophagus, upper gastrointestinal, small bowel and barium enema. Health physical, background check, drug test, and CPR certification is required. Intended for students enrolled in Radiologic Technology Program. Designed to meet The Joint Review Committee on Education in Radiologic Technology (JRCERT) accreditation standards.

**RAD 2C — Clinical Experience 2C**  
3 Units  
Degree Applicable, CSU  
(Include 150 hours lab)  
Prerequisite: RAD 2B  
Corequisite: RAD 63  
Clinical experience in the radiology department of affiliated hospitals under the supervision of a licensed radiologic technologist. Emphasis on special and elective procedures. Health physical, background check, drug test, and CPR certification is required. Intended for students enrolled in Radiologic Technology Program. Designed to meet The Joint Review Committee on Education in Radiologic Technology (JRCERT) accreditation standards.

**RAD 3A — Clinical Experience 3A**  
7.5 Units  
Degree Applicable, CSU  
(Include 384 hours lab)  
Prerequisite: RAD 2B  
Corequisite: RAD 63  
Clinical experience in the radiology department of affiliated hospitals under the supervision of a licensed radiologic technologist. Emphasis on special and elective procedures. Health physical, background check, drug test, and CPR certification is required. Intended for students enrolled in Radiologic Technology Program. Designed to meet The Joint Review Committee on Education in Radiologic Technology (JRCERT) accreditation standards.

**RAD 3B — Clinical Experience 3B**  
3 Units  
Degree Applicable, CSU  
(Include 150 hours lab)  
Prerequisite: RAD 3A  
Clinical experience in the radiology department of affiliated hospitals under the supervision of a licensed radiologic technologist. Emphasis on special and elective procedures. Health physical, background check, drug test, and CPR certification is required. Intended for students enrolled in Radiologic Technology Program. Designed to meet The Joint Review Committee on Education in Radiologic Technology (JRCERT) accreditation standards.

**RAD 3C — Clinical Experience 3C**  
7.5 Units  
Degree Applicable, CSU  
(Include 384 hours lab)  
Prerequisite: RAD 3B  
Clinical experience in the radiology department of affiliated hospitals under the supervision of a licensed radiologic technologist. Emphasis on special and elective procedures. Health physical, background check, drug test, and CPR certification is required. Intended for students enrolled in Radiologic Technology Program. Designed to meet The Joint Review Committee on Education in Radiologic Technology (JRCERT) accreditation standards.

**RAD 4 — Clinical Experience 4**  
4.5 Units  
Degree Applicable, CSU  
(Include 239 hours lab)  
Prerequisite: RAD 3C  
Clinical experience in the radiology department of affiliated hospitals under the supervision of a licensed radiologic technologist. Emphasis on developing imaging and/or therapeutic technologies. Health physical, background check, drug test, and CPR certification is required. Intended for students enrolled in Radiologic Technology Program.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>RAD 31</td>
<td>Fluoroscopy and Radiobiology</td>
<td>5</td>
<td>90 hours lecture. Prerequisite: RAD 62A. Corequisite: RAD 3C. Areas of radiobiology, radiation physics, exposure reduction, fluoroscopy equipment and operation, image evaluation, quality control and patient considerations. Intended for students enrolled in Radiologic Technology Program.</td>
</tr>
<tr>
<td>RAD 32</td>
<td>Digital Imaging in Radiology</td>
<td>2</td>
<td>36 hours lecture. Prerequisite: RAD 61A. Radiographic digital imaging system components, principles, operation, quality assurance, and maintenance. Factors impacting image acquisition, display, archiving and retrieval are discussed. Guidelines for selecting exposure factors and evaluating images within a digital system assist students to bridge between film-based and digital imaging systems. Intended for students enrolled in Radiologic Technology program.</td>
</tr>
<tr>
<td>RAD 50</td>
<td>Introduction to Radiologic Science and Health Care</td>
<td>3</td>
<td>54 hours lecture. Foundations of radiography and the practitioner’s role in the healthcare delivery system. Principles, practices and policies of healthcare organizations are examined and discussed in addition to the professional responsibilities of the radiographer. Includes radiation safety and a foundation in ethics and law related to the practice of medical imaging. Intended for students enrolled in Radiologic Technology Program.</td>
</tr>
<tr>
<td>RAD 61A</td>
<td>Theory of Radiologic Technology</td>
<td>4</td>
<td>72 hours lecture. Prerequisite: RAD 50 and PHYS 1. Corequisite: RAD 1A and RAD 61B and RAD 61C. Structure of the atom, radiation, radiographic equipment, exposure factor formulation, technique charts, and radiation protection. Intended for students enrolled in Radiologic Technology Program.</td>
</tr>
<tr>
<td>RAD 61B</td>
<td>Radiographic Procedures I</td>
<td>3</td>
<td>54 hours lecture. Prerequisite: RAD 50, RAD 91, ANAT 10A, ANAT 10B and MEDI 90. Corequisite: RAD 61A, RAD 61C, and RAD 1A. Knowledge base necessary to perform standard imaging procedures and special studies. Consideration is given to the evaluation of optimal images. Focus on anatomy and positioning of the upper and lower limbs, chest and abdomen. Intended for students enrolled in Radiologic Technology Program.</td>
</tr>
<tr>
<td>RAD 61C</td>
<td>Radiographic Procedures I Laboratory</td>
<td>1.5</td>
<td>18 hours lecture. 18 hours lab. Prerequisite: RAD50, RAD 91, ANAT 10A, ANAT 10B, and MEDI 90. Corequisite: RAD 61A, RAD 61B and RAD 1A. Practical application of standard imaging procedures and special studies. Consideration is given to the evaluation of optimal images. Focus on anatomy and positioning of the upper and lower limbs, chest and abdomen. Intended for students enrolled in Radiologic Technology Program.</td>
</tr>
<tr>
<td>RAD 62A</td>
<td>Theory of Radiologic Technology</td>
<td>4</td>
<td>72 hours lecture. Prerequisite: RAD 61A and RAD 1B. Corequisite: RAD 2A, RAD 62B, and RAD 62C. Areas of X-ray production and interaction with matter, principles of imaging, film screen processing, imaging equipment, and radiation protection. Intended for students enrolled in Radiologic Technology Program.</td>
</tr>
<tr>
<td>RAD 62B</td>
<td>Radiographic Procedures II</td>
<td>3</td>
<td>54 hours lecture. Prerequisite: RAD 61A, RAD 61B, RAD 61C. Corequisite: RAD 62A, RAD 62C and RAD 2A. Knowledge base necessary to perform standard imaging procedures and special studies. Consideration is given to the evaluation of optimal images. Focus on anatomy and positioning of the vertebral column, bony thorax, cranium, gastrointestinal (GI) system and genitourinary (GU) system. Intended for students enrolled in Radiologic Technology Program.</td>
</tr>
<tr>
<td>READ 70</td>
<td>Approaches to Reading</td>
<td>3</td>
<td>54 hours lecture. (May be taken for Pass/No Pass only). Introduction to comprehension and vocabulary strategies, and self-reflection on reading.</td>
</tr>
</tbody>
</table>
**Course Descriptions**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Units</th>
<th>Degree Applicable</th>
<th>Prerequisites</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>READ 80</strong></td>
<td>Exploring Reading Strategies</td>
<td>3</td>
<td>Not Degree Applicable</td>
<td>(May be taken for Pass/No Pass only)</td>
</tr>
<tr>
<td><strong>READ 90</strong></td>
<td>Reading College Texts</td>
<td>3</td>
<td>Degree Applicable</td>
<td>(May be taken for option of letter grade or Pass/No Pass)</td>
</tr>
<tr>
<td><strong>READ 100</strong></td>
<td>Analysis and Critical Reading</td>
<td>3</td>
<td>Degree Applicable, CSU</td>
<td></td>
</tr>
<tr>
<td><strong>RESD 50</strong></td>
<td>Theory and Principles of Respiratory Therapy</td>
<td>2</td>
<td>Degree Applicable, CSU</td>
<td>36 hours lecture, Prerequisite: ANAT 10A, ANAT 10B, CHEM 10, MATH 51, MEDI 90, Corequisite: RESD 51A, RESD 52, History of respiratory care, patient confidentiality, patient safety, principles of infection control, bloodborne and airborne pathogens, ethical and legal implications of practice, professionalism, physical principles of respiratory care, and computer applications in respiratory care.</td>
</tr>
<tr>
<td><strong>RESD 51A</strong></td>
<td>Respiratory Therapy Science</td>
<td>4</td>
<td>Degree Applicable, CSU</td>
<td>54 hours lecture, 54 hours lab, Prerequisite: RESD 50 and RESD 51A, Corequisite: RESD 53 and RESD 60, Principles of respiratory therapy equipment. Emphasis placed on the methods of administration of therapy and the application of specialized equipment in the acute care setting and the application of mechanical ventilation in the clinical setting.</td>
</tr>
<tr>
<td><strong>RESD 51B</strong></td>
<td>Respiratory Therapy Science</td>
<td>4</td>
<td>Degree Applicable, CSU</td>
<td>54 hours lecture, 54 hours lab, Prerequisite: RESD 50 and RESD 51A, Corequisite: RESD 53 and RESD 60, Respiratory therapy equipment will be presented. Emphasis is placed on the methods of administration of therapy and the application of specialized equipment in the acute care setting and the application of mechanical ventilation in the clinical setting.</td>
</tr>
<tr>
<td><strong>RESD 52</strong></td>
<td>Pulmonary Anatomy and Physiology</td>
<td>3</td>
<td>Degree Applicable, CSU</td>
<td>54 hours lecture, Prerequisite: MEDI 90, CHEM 10, ANAT 10A and 10B, MATH 51, Corequisite: RESD 51A, RESD 50, Anatomy and physiology of the cardiopulmonary, neurological, and renal systems emphasizing clinical application of physiological concepts.</td>
</tr>
<tr>
<td><strong>RESD 53</strong></td>
<td>Cardiopulmonary Pathophysiology</td>
<td>3</td>
<td>Degree Applicable, CSU</td>
<td>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.</td>
</tr>
<tr>
<td><strong>RESD 55</strong></td>
<td>Adult Respiratory Intensive Care</td>
<td>3</td>
<td>Degree Applicable, CSU</td>
<td>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.</td>
</tr>
<tr>
<td><strong>RESD 56A</strong></td>
<td>Techniques of Respiratory Therapy</td>
<td>2.5</td>
<td>Degree Applicable, CSU</td>
<td>(May be taken for Pass/No Pass only)</td>
</tr>
<tr>
<td><strong>RESD 56B</strong></td>
<td>Techniques of Respiratory Therapy</td>
<td>6</td>
<td>Degree Applicable, CSU</td>
<td>324 hours lab, Prerequisite: RESD 56A, Corequisite: RESD 55, RESD 58, Clinical practice in the hospital setting. The student is expected to perform basic therapeutic modalities mastered in RESD 51A and RESD 51B and apply concepts learned in the first three semesters of the Respiratory Therapy Program. Instruction in the application of therapeutic modalities and diagnostic procedures performed in the management and treatment of adult and pediatric patients requiring respiratory care are done. Emphasis of intensive care and mechanical ventilator procedures are introduced.</td>
</tr>
<tr>
<td><strong>RESD 56C</strong></td>
<td>Techniques of Respiratory Therapy</td>
<td>2.5</td>
<td>Degree Applicable, CSU</td>
<td>(May be taken for Pass/No Pass only)</td>
</tr>
<tr>
<td><strong>RESD 56D</strong></td>
<td>Techniques of Respiratory Therapy</td>
<td>6</td>
<td>Degree Applicable, CSU</td>
<td>324 hours lab, Prerequisite: RESD 55, Clinical practice in the hospital setting. Continued practice of intensive care and mechanical ventilator procedures in the treatment of adult and pediatric patients.</td>
</tr>
<tr>
<td><strong>RESD 57A</strong></td>
<td>Special Procedures for Respiratory Care</td>
<td>1.5</td>
<td>Degree Applicable, CSU</td>
<td>27 hours lecture, Prerequisite: RESD 50, Application and skills development in chest tubes and drainage systems, aerosol pharmacology for respiratory care and arterial blood gas analysis.</td>
</tr>
<tr>
<td>Course Code</td>
<td>Course Title</td>
<td>Units</td>
<td>Degree Applicable</td>
<td>Prerequisites</td>
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<tr>
<td>RESD 57B</td>
<td>Special Procedures for Respiratory Care</td>
<td>1.5</td>
<td>CSU</td>
<td>Prerequisite: RESD 51B Carequisite: RESD 56A Application and skills development in pharmacology, bronchoscopy, mechanical ventilation, and arterial blood gas puncture.</td>
</tr>
<tr>
<td>RESD 58</td>
<td>Neonatal Intensive Care</td>
<td>3</td>
<td>Degree Applicable</td>
<td>Prerequisite: RESD 56B and RESD 55 Emphasizes neonatal pathophysiology, etiologies, and ramifications. Encompasses the newest techniques in monitoring equipment used in the treatment and maintenance of the premature infant. Designed primarily for respiratory therapists and nurses.</td>
</tr>
<tr>
<td>RESD 59</td>
<td>Respiratory Therapeutic Modalities</td>
<td>3</td>
<td>Degree Applicable</td>
<td>Prerequisite: RESD 55 Corequisite: RESD 56D and RESD 59 Advanced practitioner review and evaluation of patient data, equipment manipulation, and therapeutic respiratory therapy procedures. Student self-assessment and preparation for board examinations, credentialing and employment. Students are required to purchase self-assessment examinations.</td>
</tr>
<tr>
<td>RESD 60</td>
<td>Comprehensive Pulmonary Assessment</td>
<td>2</td>
<td>Degree Applicable</td>
<td>Prerequisite: RESD 51B and RESD 53 Techniques of pulmonary assessment including history taking, clinical laboratory data, pulmonary function testing data, chest X-rays, physical exam findings, arterial blood gas data, hemodynamic monitoring data, exhaled gas monitoring data, nutrition, and synopsis of findings; extensive practice in interpreting this data.</td>
</tr>
<tr>
<td>RESD 61</td>
<td>Current Issues in Respiratory Care</td>
<td>3</td>
<td>Degree Applicable</td>
<td>Prerequisite: RESD 56C Carequisite: RESD 56D and RESD 59 Explores recently developed health care techniques and strategies for diagnostics, assessment, and therapeutics and their impact on respiratory therapists.</td>
</tr>
<tr>
<td>RESD 62</td>
<td>Pharmacology for Respiratory Care</td>
<td>1.5</td>
<td>Degree Applicable</td>
<td>Prerequisite: RESD 50 and RESD 51A and RESD 52 Commonly used respiratory care drugs with emphasis on dosage, indications, contraindications, adverse reactions, and expected outcomes.</td>
</tr>
<tr>
<td>SL 2</td>
<td>Linked Service Learning</td>
<td>1</td>
<td>Degree Applicable</td>
<td>Corequisite: RESD 56A 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.</td>
</tr>
<tr>
<td>SIGN 101</td>
<td>American Sign Language 1</td>
<td>4</td>
<td>Degree Applicable</td>
<td>Prerequisite: SIGN 102 Corequisite: RESD 56A and RESD 59 Explores recently developed health care techniques and strategies for diagnostics, assessment, and therapeutics and their impact on respiratory therapists.</td>
</tr>
<tr>
<td>SIGN 101H</td>
<td>American Sign Language 1 - Honors</td>
<td>4</td>
<td>Degree Applicable</td>
<td>Corequisite: RESD 56D and RESD 59 Further study 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. Students are expected to attend outside events at their own expense.</td>
</tr>
<tr>
<td>SIGN 102</td>
<td>American Sign Language 2</td>
<td>4</td>
<td>Degree Applicable</td>
<td>Corequisite: RESD 56A and RESD 59 Further study 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. Students are expected to attend outside events at their own expense.</td>
</tr>
<tr>
<td>SIGN 103</td>
<td>American Sign Language 3</td>
<td>4</td>
<td>Degree Applicable</td>
<td>Prerequisite: SIGN 102 American Sign Language focused on developing comprehension skills, advanced grammatical structures with continued emphasis on expressive skills in narrative. Aspects of Deaf culture will be studied. Field trips required.</td>
</tr>
<tr>
<td>SIGN 104</td>
<td>American Sign Language 4</td>
<td>4</td>
<td>Degree Applicable</td>
<td>Prerequisite: SIGN 103 Expressive and conversational skills in American Sign Language (ASL) along with continued focus on grammatical and cultural features.</td>
</tr>
<tr>
<td>SIGN 105</td>
<td>American Sign Language 5</td>
<td>4</td>
<td>Degree Applicable</td>
<td>Prerequisite: SIGN 104 Advanced American Sign Language (ASL) communication skills with emphasis on signing descriptive narratives and strengthening conversational skills. Target language practice includes holding discussions and making decisions. Further exposure to Deaf cultural components.</td>
</tr>
<tr>
<td>SIGN 108</td>
<td>Fingerspelling</td>
<td>2</td>
<td>Degree Applicable</td>
<td>Prerequisite: SIGN 102 Receptive and expressive fingerspelling.</td>
</tr>
<tr>
<td>SIGN 201</td>
<td>Introduction to Deaf Studies</td>
<td>3</td>
<td>Degree Applicable</td>
<td>Prerequisite: SIGN 102 Topics central to the Deaf community including Deaf education, Deaf/hearing relationships, and Deaf history. Topics include early intervention and education of deaf children, communication strategies and their effectiveness, anatomy and causes of deafness, and Deaf people as a cultural group. Gives a holistic perspective of Deaf people applicable to further studies in Deaf culture and community.</td>
</tr>
<tr>
<td>SIGN 202</td>
<td>American Deaf Culture</td>
<td>3</td>
<td>Degree Applicable</td>
<td>Prerequisite: SIGN 102 American Deaf cultural norms, values, mores and institutions.</td>
</tr>
<tr>
<td>Course Descriptions</td>
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<tr>
<td><strong>SIGN 210</strong> — American Sign Language Structure</td>
<td>3 Units</td>
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<tr>
<td>Degree Applicable, CSU, UC</td>
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<tr>
<td>54 hours lecture</td>
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<tr>
<td>Prerequisite: SIGN 103</td>
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<tr>
<td>Linguistic structure of American Sign Language, including phonology, morphology and syntax. Sociolinguistic issues will also be discussed.</td>
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<tr>
<td><strong>SIGN 220</strong> — Translation: American Sign Language/English</td>
<td>3 Units</td>
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<td>Degree Applicable, CSU</td>
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<tr>
<td>54 hours lecture</td>
<td></td>
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<tr>
<td>Prerequisite: SIGN 104</td>
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<tr>
<td>Corequisite: SIGN 210 (May have been taken previously.)</td>
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<tr>
<td>American Sign Language and English translation by comparing texts in both languages.</td>
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<tr>
<td><strong>SIGN 223</strong> — Principles of Interpreting</td>
<td>3 Units</td>
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<tr>
<td>Degree Applicable, CSU</td>
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<tr>
<td>54 hours lecture</td>
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<tr>
<td>Prerequisite: SIGN 103 and Eligibility for ENGL 1A</td>
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<tr>
<td>Aspects of interpreting theory and process including the history of sign language interpreting. Examines the interpreter’s role and ethical standards.</td>
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<tr>
<td><strong>SIGN 225</strong> — Ethical Decision Making for Interpreters</td>
<td>2 Units</td>
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<tr>
<td>Degree Applicable</td>
<td></td>
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<tr>
<td>36 hours lecture</td>
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<tr>
<td>Prerequisite: SIGN 223 and SIGN 231</td>
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<tr>
<td>Development of ethical decision-making skills through the analytical construct of the Demand/Control Schema (DC-S) for interpreting work. Includes professional work effectiveness and professional wellness.</td>
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<tr>
<td><strong>SIGN 227</strong> — Cognitive Processing for Interpreters</td>
<td>4 Units</td>
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<tr>
<td>Degree Applicable, CSU</td>
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<td>(May be taken for option of letter grade or Pass/No Pass)</td>
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<tr>
<td>54 hours lecture</td>
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<tr>
<td>54 hours lab</td>
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<tr>
<td>Prerequisite: SIGN 104</td>
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<tr>
<td>Corequisite: SIGN 210 (May have been taken previously.)</td>
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<tr>
<td>An overview of the common forms of ASL classifier predicates. Developing skill in establishing figure/ground, visualization, and shifting perspectives. Applying classifier predicates within the context of interpreting from English into American Sign Language.</td>
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<tr>
<td><strong>SIGN 231</strong> — Interpreting</td>
<td>4 Units</td>
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<tr>
<td>Degree Applicable</td>
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<td>(May be taken for option of letter grade or Pass/No Pass)</td>
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<tr>
<td>54 hours lecture</td>
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<tr>
<td>54 hours lab</td>
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<tr>
<td>Prerequisite: SPCH 1A and SIGN 227</td>
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<tr>
<td>Skill development in consecutive interpreting from American Sign Language (ASL) to English and English to ASL. Processing skills and task management will be emphasized.</td>
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<tr>
<td><strong>SIGN 232</strong> — Advanced Interpreting</td>
<td>4 Units</td>
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<td>Degree Applicable</td>
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<td>54 hours lecture</td>
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<tr>
<td>Prerequisite: SIGN 231</td>
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<tr>
<td>Refines interpreting skills with emphasis on simultaneous interpreting. Intensive skill development in interpreting from English to American Sign Language (ASL) and ASL to English.</td>
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<tr>
<td><strong>SIGN 239</strong> — Applied Interpreting</td>
<td>2 Units</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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<tr>
<td>36 hours lecture</td>
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<tr>
<td>Prerequisite: SIGN 232</td>
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<tr>
<td>Capstone class to the interpreter training program. Course emphasizes application of knowledge and skills developed. Students will develop a direct connection to the field of interpreting and explore continuing education opportunities. Students are required to complete 40 hours of out-of-class interpreting and participation in out-of-class interpreting continuing education.</td>
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<tr>
<td><strong>SIGN 240</strong> — Vocabulary Building for Interpreters</td>
<td>2 Units</td>
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<tr>
<td>Degree Applicable, CSU</td>
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<td>(May be taken for Pass/No Pass only)</td>
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<tr>
<td>36 hours lecture</td>
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<tr>
<td>Prerequisite: SIGN 104</td>
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<tr>
<td>Vocabulary expansion in both ASL and English with the goal of improving interpretations between these two languages. The course will focus on context, semantics, and parts of speech in determining culturally appropriate vocabulary choices. Interpreting students will learn to apply their growing vocabularies to ASL-English interpretations.</td>
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<tr>
<td><strong>SIGN 250</strong> — Interpreting with Classifiers</td>
<td>1.5 Units</td>
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<tr>
<td>Degree Applicable</td>
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<td>(May be taken for Pass/No Pass only)</td>
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<tr>
<td>18 hours lecture</td>
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<tr>
<td>27 hours lab</td>
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<tr>
<td>Prerequisites: SIGN 104 and SIGN 210</td>
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<tr>
<td>An overview of the common forms of ASL classifier predicates. Developing skill in establishing figure/ground, visualization, and shifting perspectives. Applying classifier predicates within the context of interpreting from English into American Sign Language.</td>
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<tr>
<td><strong>SIGN 260</strong> — Video Interpreting</td>
<td>1.5 Units</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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<tr>
<td>18 hours lecture</td>
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<tr>
<td>27 hours lab</td>
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<tr>
<td>Prerequisite: SIGN 210</td>
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<tr>
<td>Video interpreting and skill development as a video interpreter. Includes video relay interpreting (VRS), video remote interpreting (VRI), technical components used in video interpreting, and ethical consideration of the video interpreter. Lab portion of the course will focus on skill development in video interpreting.</td>
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<tr>
<td><strong>SIGN 299</strong> — Special Projects in Sign Language/Interpreting</td>
<td>2 Units</td>
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<tr>
<td>Degree Applicable</td>
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<tr>
<td>(C-ID SOCI 110) Degree Applicable, CSU, UC</td>
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<td>May be taken for option of letter grade or Pass/No Pass only)</td>
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<tr>
<td>36 hours lecture</td>
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<tr>
<td>Students may not receive credit for both SOC 1 and SOC 1H.</td>
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### Sociology

<table>
<thead>
<tr>
<th>Course Descriptions</th>
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<tbody>
<tr>
<td><strong>SOC 1</strong> — Sociology</td>
</tr>
<tr>
<td>Degree Applicable, CSU, UC</td>
</tr>
<tr>
<td>54 hours lecture</td>
</tr>
<tr>
<td>Prerequisite: Eligibility for ENGL 68</td>
</tr>
<tr>
<td>Systematic study of human relations and social structures emphasizing the interaction between personality, culture and society. Special consideration is given to an understanding of group behavior, personality formation, social organization, and social change.</td>
</tr>
<tr>
<td><strong>SOC 1H</strong> — Sociology - Honors</td>
</tr>
<tr>
<td>Degree Applicable, CSU, UC</td>
</tr>
<tr>
<td>54 hours lecture</td>
</tr>
<tr>
<td>Prerequisite: Acceptance into the Honors Program</td>
</tr>
<tr>
<td>Systematic study of human relations and social structures emphasizing the interaction between personality, culture and society. Special consideration is given to an understanding of group behavior, personality formation, social organization, and social change. An honors course designed to provide an enriched experience. Students may not receive credit for both SOC 1 and SOC 1H.</td>
</tr>
<tr>
<td><strong>SOC 2</strong> — Contemporary Social Problems</td>
</tr>
<tr>
<td>-----------------------------------------</td>
</tr>
<tr>
<td>(C-ID SOCI 115) Degree Applicable, CSU, UC</td>
</tr>
<tr>
<td>54 hours lecture</td>
</tr>
<tr>
<td>Prerequisite: Eligibility for ENGL 68</td>
</tr>
<tr>
<td>Sociological principles and concepts as applied in the understanding of social problems. Special emphasis on the analysis of social values, social organization, role, status and stress, and also on the study of controversial public issues that arise in contemporary American society. Students will be encouraged to evaluate and discuss both the theoretical and practical approaches to social problems.</td>
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<table>
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<tr>
<th><strong>SOC 2H</strong> — Contemporary Social Problems - Honors</th>
<th>3 Units</th>
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<tbody>
<tr>
<td>(C-ID SOCI 115) Degree Applicable, CSU, UC</td>
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<tr>
<td>54 hours lecture</td>
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<tr>
<td>Prerequisite: Acceptance into the Honors Program</td>
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</tr>
<tr>
<td>Sociological principles and concepts as applied in the understanding of social problems. Special emphasis on the analysis of social values, social organization, role, status and stress, and also on the study of controversial public issues that arise in contemporary American society. Students will be encouraged to evaluate and discuss both the theoretical and practical approaches to social problems. An honors course designed to provide an enriched experience. Students may not receive credit for both SOC 2 and SOC 2H.</td>
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<table>
<thead>
<tr>
<th><strong>SOC 4</strong> — Introduction to Gerontology</th>
<th>3 Units</th>
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</thead>
<tbody>
<tr>
<td>Degree Applicable, CSU, UC</td>
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<tr>
<td>54 hours lecture</td>
<td></td>
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<tr>
<td>Prerequisite: Eligibility for ENGL 68</td>
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<tr>
<td>The characteristics, life circumstances, and problems of people as they progress through life. Emphasizes theoretical perspectives on the process of aging and the adjustment to aging. Covers sociological factors and social institutions that affect individuals as they move through the life course.</td>
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<tr>
<th><strong>SOC 5</strong> — Introduction to Criminology</th>
<th>3 Units</th>
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<tr>
<td>(C-ID SOCI 160) Degree Applicable, CSU, UC</td>
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<tr>
<td>54 hours lecture</td>
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<tr>
<td>Prerequisite: Eligibility for ENGL 68</td>
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<tr>
<td>A scientific analysis of the nature, extent, and causes of violations of societal rules of behavior that are formally defined as crime and delinquency. Includes an analysis of the theoretical perspectives of the sociology of deviance on the criminal justice system and the impact of crime on society.</td>
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<tr>
<th><strong>SOC 5H</strong> — Introduction to Criminology - Honors</th>
<th>3 Units</th>
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<tbody>
<tr>
<td>(C-ID SOCI 160) Degree Applicable, CSU, UC</td>
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<tr>
<td>54 hours lecture</td>
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<tr>
<td>Prerequisite: Acceptance into the Honors Program</td>
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<tr>
<td>A scientific analysis of the nature, extent, and causes of violations of societal rules of behavior that are formally defined as crime and delinquency. Includes an analysis of the theoretical perspectives of the sociology of deviance on the criminal justice system and the impact of crime on society. An honors course designed to provide an enriched experience. Students may not receive credit for both SOC 5 and SOC 5H.</td>
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<tr>
<th><strong>SOC 7</strong> — Sociology of Religion</th>
<th>3 Units</th>
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<tbody>
<tr>
<td>Degree Applicable, CSU, UC</td>
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<tr>
<td>54 hours lecture</td>
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<tr>
<td>An analysis of religion as a social institution. Attention will focus on the influence that religion has on American society, religious movements, norms, symbols and the social manifestations of religious observable facts.</td>
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<tr>
<th><strong>SOC 10</strong> — Sociology of Ethnic Relations</th>
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<tr>
<td>Degree Applicable, CSU</td>
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<tr>
<td>(C-ID SOCI 150)</td>
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<tr>
<td>54 hours lecture</td>
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<tr>
<td>Prerequisite: Eligibility for ENGL 68</td>
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<tr>
<td>Ethnic and racial groups in the U.S. and social factors leading to prejudice, discrimination, and stereotypes. Four major ethnic groups (Blacks, Asians, Native Americans, and Latinos) examined with emphasis placed on historical experiences, contemporary circumstances and future trends.</td>
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<tr>
<th><strong>SOC 14</strong> — Marriage and the Family</th>
<th>3 Units</th>
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<tbody>
<tr>
<td>(C-ID SOCI 130) Degree Applicable, CSU, UC</td>
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<tr>
<td>54 hours lecture</td>
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<tr>
<td>Prerequisite: Eligibility for ENGL 68</td>
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<tr>
<td>Sociological functions of dating, engagement, weddings, marriage, and the family. Focuses on influences and theories of mate selection, love, and interpersonal attraction. Covers trends and changes in marriage, the family, and gender roles. Explores different types of families and family patterns.</td>
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<tr>
<th><strong>SOC 14H</strong> — Marriage and the Family - Honors</th>
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<td>(C-ID SOCI 130) Degree Applicable, CSU, UC</td>
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<tr>
<td>54 hours lecture</td>
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<tr>
<td>Prerequisite: Acceptance in the Honors Program.</td>
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<tr>
<td>Sociological functions of dating, engagement, weddings, marriage, and the family. Focuses on influences and theories of mate selection, love, and interpersonal attraction. Covers trends and changes in marriage, the family, and gender roles. Explores different types of families and family patterns. An honors course designed to provide an enriched experience. Students may not receive credit for both SOC 14 and SOC 14H.</td>
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<tr>
<th><strong>SOC 15</strong> — Child Development</th>
<th>3 Units</th>
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<tbody>
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<td>Degree Applicable, CSU, UC</td>
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<tr>
<td>54 hours lecture</td>
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<tr>
<td>Prerequisite: Eligibility for ENGL 68</td>
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<tr>
<td>Theoretical aspects of physical, social, emotional and cognitive development from conception through adolescence. Requires observation of children.</td>
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<thead>
<tr>
<th><strong>SOC 20</strong> — Sociology of Ethnic Relations</th>
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<tr>
<td>(C-ID SOCI 150)</td>
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<tr>
<td>54 hours lecture</td>
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<td>Prerequisite: Eligibility for ENGL 68</td>
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<td>Ethnic and racial groups in the U.S. and social factors leading to prejudice, discrimination, and stereotypes. Four major ethnic groups (Blacks, Asians, Native Americans, and Latinos) examined with emphasis placed on historical experiences, contemporary circumstances and future trends.</td>
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## SPANISH

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<thead>
<tr>
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<th>Course Title</th>
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<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>72 hours lecture</td>
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<tr>
<td></td>
<td>Conversing, reading, and writing in Spanish at the</td>
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<td></td>
<td>elementary level. Includes essentials of</td>
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<td></td>
<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 Spanish culture.</td>
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<tr>
<td>SPAN 2</td>
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<td>Prerequisite: SPAN 1</td>
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<tr>
<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>Prerequisite: SPAN 2</td>
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<td></td>
<td>Further development of communicative proficiency</td>
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<td></td>
<td>in Spanish. Further study of grammar. Increasing</td>
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<td>emphasis on reading and writing as tools in</td>
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<td></td>
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<td>Prerequisite: SPAN 3</td>
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<td>Increased proficiency in speaking, reading and</td>
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<td></td>
<td>writing Spanish. Review of grammar, increased</td>
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<td></td>
<td>vocabulary building. Readings and discussions on</td>
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<td></td>
<td>Hispanic cultural topics. Introduction to Hispanic</td>
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<td>SPAN 11</td>
<td>Spanish for the Spanish Speaking</td>
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<td>Prerequisite: SPAN 2 or equivalent</td>
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<td></td>
<td>Provides Spanish-speaking students opportunity to</td>
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<td>improve skills in standard Spanish grammar and</td>
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<td></td>
<td>vocabulary and to broaden their understanding of</td>
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<td>Hispanic cultures. Focuses on developing</td>
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<td>vocabulary, improving orthography and the use of</td>
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<td></td>
<td>grammatical structures, both oral and written.</td>
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<td>Class instruction conducted in Spanish.</td>
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<td>SPAN 12</td>
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<td>Prerequisite: SPAN 11 or equivalent</td>
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<td>Provides Spanish-speaking students with previous</td>
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<td>formal study of Spanish with further development</td>
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<td></td>
<td>and improvement of skills in standard Spanish</td>
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<td></td>
<td>and a broader understanding of Hispanic cultures.</td>
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<td></td>
<td>Culturally-based topics are the focus of readings</td>
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<td>and class discussions. Class instruction</td>
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<td>conducted in Spanish.</td>
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<td>SPAN 53</td>
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<td>Prerequisite: SPAN 2</td>
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<td></td>
<td>Development of intermediate Spanish conversational</td>
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<td>skills. Emphasis on collaborative activities and</td>
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<td>practical use of the language. Extensive</td>
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<td>exposure to Hispanic culture. Grammar is</td>
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<td>presented in context.</td>
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<td>Prerequisite: SPAN 53</td>
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<td>Development of advanced Spanish conversational</td>
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<td>skills. Emphasis on collaborative activities and</td>
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<td>practical use of the language. Extensive</td>
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<td>exposure to Hispanic culture. Grammar is</td>
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<tr>
<td>SPCH 1A</td>
<td>Public Speaking</td>
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<td></td>
<td>72 hours lecture</td>
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<td></td>
<td>Prerequisite: Eligibility for ENGL 8B</td>
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<td></td>
<td>Study and apply rhetorical principles to research</td>
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<td></td>
<td>and analyze topics, write basic and advanced</td>
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<td>speech outlines, and deliver effective</td>
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<td>public speeches. Perform speaking and listening</td>
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<td></td>
<td>assignments that utilize effective verbal, vocal</td>
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</table>
|             | and physical communicative strategies, and critical/analytical techniques. Students may not receive credit for both SPCH 1A and SPCH 1AH.

## SPEECH

<table>
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<td>Prerequisite: Acceptance into the Honors Program</td>
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<td></td>
<td>Study and apply rhetorical principles to research</td>
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<td>and analyze topics, write basic and advanced</td>
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<td>speech outlines, and deliver effective</td>
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<td>public speeches. Perform speaking and listening</td>
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<td>assignments that utilize effective verbal, vocal</td>
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|             | and physical communicative strategies, and critical/analytical techniques. Students may not receive credit for both SPCH 1A and SPCH 1AH.

## SPEECH

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<td>Prerequisite: SPCH 1A or SPCH 1AH</td>
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<td></td>
<td>Extemporaneous, impromptu, manuscript and</td>
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<td></td>
<td>memorized speaking focusing on organization,</td>
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<td></td>
<td>research and delivery skills.</td>
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<td>Includes skills to analyze, synthesize,</td>
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<td></td>
<td>criticize, and advocate ideas using inductive</td>
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<td></td>
<td>and deductive reasoning, distinguishing fact</td>
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<td></td>
<td>from opinion and avoiding argumentative</td>
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<td></td>
<td>fallacies.</td>
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<td>SPCH 2</td>
<td>Fundamentals of Communication</td>
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<td>Corequisite: ENGL 1A or ENGL 1AH (May have been</td>
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<td></td>
<td>Fundamental theories and competencies in</td>
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<td>interpersonal, small group, public, and</td>
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<td>intercultural communication. Oral presenta-</td>
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<td>tions are required.</td>
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<td>Voice and Diction</td>
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<td>Prerequisite: SPCH 1A or SPCH 1AH</td>
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<td></td>
<td>Improvement of the speaking voice and oral</td>
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<td>communication style, including proper use for</td>
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<td>control and projection of the voice, vocal</td>
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<td></td>
<td>expressiveness, articulation and pronunciation.</td>
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<td>Develops accuracy of sound production for</td>
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<td>standard American speech through use of the</td>
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<td>International Phonetic Alphabet. Emphasizes</td>
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<td>individual diagnosis and extensive oral</td>
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<td>SPCH 4</td>
<td>Performance of Literature</td>
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<td></td>
<td>Prerequisite: Eligibility for ENGL 8B</td>
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<td></td>
<td>Theory, principles, and techniques of the</td>
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<td>performance of literature in solo and duo formats.</td>
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<td>Texts will include prose, poetry, drama,</td>
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<td>nonfiction and other forms. Appreciation of</td>
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<td>various genres of literature through textual</td>
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<td>analysis, oral reading, and evaluation.</td>
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<td>Practical training is given in critical reading,</td>
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<td></td>
<td>editing, and performance of poetry, prose,</td>
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<td>drama, essay, and experimental forms of</td>
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<td>performance text drawn from a diverse range of</td>
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<td>cultural viewpoints and voices.</td>
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### Course Descriptions

<table>
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<th>Course Code</th>
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<th>Units</th>
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<tbody>
<tr>
<td>SPCH 6 —</td>
<td>Group Communication</td>
<td>3</td>
<td>Theory, principles, application and evaluation of group communication processes, including problem-solving, conflict management, decision making, and leadership.</td>
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<tr>
<td>SPCH 7 —</td>
<td>Intercultural Communication</td>
<td>3</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>
</tr>
<tr>
<td>SPCH 7H —</td>
<td>Intercultural Communication Honors</td>
<td>3</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 8 —</td>
<td>Professional and Organizational Speaking</td>
<td>4</td>
<td>Speech communication principles as employed in organizations, including decision making, leadership, conflict resolution and communication networks as well as substantial skills development in preparing and delivering oral presentations within professional contexts and in the workplace. Oral presentations are required.</td>
</tr>
<tr>
<td>SPCH 8H —</td>
<td>Professional and Organizational Speaking - Honors</td>
<td>4</td>
<td>Speech communication principles as employed in organizations, including decision making, leadership, conflict resolution and communication networks as well as substantial skills development in preparing and delivering oral presentations within professional contexts and in the workplace. Oral presentations are required. An honors course designed to provide an enriched experience. Students may not receive credit for both SPCH 8 and SPCH 8H.</td>
</tr>
<tr>
<td>SPCH 15 —</td>
<td>Forensics: Fundamentals of Contest Speech and Debate</td>
<td>2</td>
<td>(May be taken four times for credit) 18 hours lecture 54 hours lab Advisory: SPCH 1A or SPCH 1AH Participation in one or more intercollegiate competitions as part of the Mt. SAC Forensics Team. Instructions in preparatory procedures for these tournaments, including techniques in persuasive oratory, interpretation, exposition, impromptu, speech analysis, and debate. Students have option to choose area of interest and also an opportunity to participate in public community programs. Tournament attendance required outside regularly scheduled class hours. Students who repeat this course will benefit from additional competition experiences.</td>
</tr>
<tr>
<td>SPCH 16 —</td>
<td>Forensics: Individual Event Team</td>
<td>3</td>
<td>(May be taken four times for credit) 167 hours activity Prerequisite: Admission by audition Speech performance skills and participation in multiple intercollegiate speaking competitions as members of the Mt. SAC Forensics Team. Auditions are held prior to the first week of classes and are scheduled through the coaching staff. Tournament attendance required outside regularly scheduled class hours. Students who repeat this course will benefit from additional competition experiences.</td>
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<tr>
<td>SPCH 17 —</td>
<td>Forensics: Debate Team</td>
<td>3</td>
<td>(May be taken four times for credit) 167 hours activity Prerequisite: SPCH 15 or SPCH 20 Speaking and argumentation skills and participation in multiple inter-collegiate speaking competitions as members of the Mt. SAC Forensics Team. Emphasis is on parliamentary debate and limited preparation speaking. Tournament attendance required outside regularly scheduled class hours. Students who repeat this course will benefit from additional competition experiences.</td>
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<tr>
<td>SPCH 18 —</td>
<td>Forensics: Reader’s Theater Team</td>
<td>3</td>
<td>(May be taken four times for credit) 167 hours activity Prerequisite: SPCH 15 Speech performance skills and participation in multiple public performances, including a regional, state or national-level forensics competition, as members of the Mt. SAC Forensics Team. Students will perform in one or more reader’s theater pieces. Tournament attendance required outside regularly scheduled class hours. Students who repeat this course will benefit from additional competition experiences.</td>
</tr>
<tr>
<td>SPCH 20 —</td>
<td>Argumentation and Debate</td>
<td>3</td>
<td>54 hours lecture Prerequisite: SPCH 1A or SPCH 1AH Rhetorical principles of argumentation in both theory and practice. Emphasis is given to rational discussion and reasoned advocacy.</td>
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<td>SPCH 20H —</td>
<td>Argumentation and Debate - Honors</td>
<td>3</td>
<td>54 hours lecture Prerequisite: SPCH 1A or SPCH 1AH and acceptance into the Honors Program Rhetorical principles of argumentation in both theory and practice. Emphasis is given to rational discussion and reasoned advocacy. An honors course designed to provide an enriched experience. Students may not receive credit for both SPCH 20 and SPCH 20H. Off-campus tournaments may be required.</td>
</tr>
<tr>
<td>SPCH 26 —</td>
<td>Interpersonal Communication</td>
<td>3</td>
<td>54 hours lecture Prerequisite: Eligibility for ENGL 68 Dynamics of everyday one-to-one communication focusing on the role behavior, psychology, and environment play in friendship, family, intimate, and workplace relationships. Factors that influence communication such as non-verbal cues, language, perception, culture, power dynamics, listening, self-concept, and health and personal well-being. Problems in relational communication and conflict management as well as adaption and success in interpersonal effectiveness.</td>
</tr>
<tr>
<td>SPCH 26H —</td>
<td>Interpersonal Communication - Honors</td>
<td>3</td>
<td>54 hours lecture Prerequisite: Acceptance into the Honors Program Dynamics of everyday one-to-one communication focusing on the role behavior, psychology, and environment play in friendship, family, intimate, and workplace relationships. Factors that influence communication such as non-verbal cues, language, perception, culture, power dynamics, listening, self-concept, and health and personal well-being. Problems in relational communication and conflict management as well as adaption and success in interpersonal effectiveness. An honors course designed to provide an enriched experience. Students may not receive credit for both SPCH 26 and SPCH 26H.</td>
</tr>
</tbody>
</table>
## Course Descriptions

### STUDY TECHNIQUES

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Units</th>
<th>Degree Applicability</th>
</tr>
</thead>
<tbody>
<tr>
<td>STDY 80</td>
<td>Foundations for Academic Success</td>
<td>3</td>
<td>Not Degree Applicable</td>
</tr>
<tr>
<td>STDY 85A</td>
<td>Basic Overview of Strategies for Academic Success</td>
<td>1</td>
<td>Not Degree Applicable</td>
</tr>
<tr>
<td>STDY 85C</td>
<td>Online Learning Success Skills</td>
<td>1</td>
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### SURVEYING

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</thead>
<tbody>
<tr>
<td>SURV 1A</td>
<td>Surveying</td>
<td>3</td>
<td>Degree Applicable, CSU, UC</td>
</tr>
<tr>
<td>SURV 1B</td>
<td>Surveying</td>
<td>3</td>
<td>Degree Applicable, CSU, UC</td>
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### TECHNOLOGY RELATED COURSES

<table>
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<th>Course Name</th>
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<th>Degree Applicability</th>
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</thead>
<tbody>
<tr>
<td>TECH 60</td>
<td>Customer Relations for the Technician</td>
<td>2</td>
<td>Degree Applicable</td>
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<tr>
<td>TECH 89</td>
<td>Preparation for Work Experience</td>
<td>1</td>
<td>Not Degree Applicable</td>
</tr>
<tr>
<td>THTR 9</td>
<td>Introduction to Theater Arts</td>
<td>3</td>
<td>Degree Applicable, CSU, UC</td>
</tr>
<tr>
<td>THTR 10</td>
<td>History of Theater Arts</td>
<td>3</td>
<td>Degree Applicable, CSU, UC</td>
</tr>
<tr>
<td>THTR 11</td>
<td>Principles of Acting I</td>
<td>3</td>
<td>Degree Applicable, CSU, UC</td>
</tr>
<tr>
<td>THTR 12</td>
<td>Principles of Acting II</td>
<td>3</td>
<td>Degree Applicable, CSU, UC</td>
</tr>
<tr>
<td>THTR 14</td>
<td>Stagecraft</td>
<td>3</td>
<td>Degree Applicable, CSU, UC</td>
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</tbody>
</table>
THTR 15 — Play Rehearsal and Performance 1 to 3 Units
(C-ID THTR 191) 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 162 hours lab
Prerequisite: Admission by audition
Planning, preparation, and presentation of college-sponsored dramatic presentations. Emphasis on acting with some technical theater assignments. Attendance at performances is required.

THTR 25 — Theatrical Playwriting 3 Units
(C-ID THTR 191) Degree Applicable, CSU, UC
(May be taken four times for credit)
(May be taken for option of letter grade or Pass/No Pass)
18 hours lecture
45 hours lab
108 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 established authors and productions. Includes basics of linear, episodic, ‘A’-’B’ and ritual structures.

THTR 60 — Children’s Theater 2 Units
(C-ID THTR 175) Not Degree Applicable
(May be taken for option of letter grade or Pass/No Pass)
18 hours lecture
54 to 108 hours lab
Prerequisite: THTR 11
Practice of children’s theater through the creation and performance of new work for young audiences. Includes experience in story development, design, directing and performance culminating in the practical application of a series of public presentations.

THTR 16 — Theatrical Make-Up 3 Units
(C-ID THTR 192) Degree Applicable, CSU, UC
(May be taken four times for credit)
(May be taken for option of letter grade or Pass/No Pass)
18 hours lecture
54 hours lab
Prerequisite: THTR 11
Theory and practice of makeup for the stage. Emphasis will be on the design and application of straight, stylized, character, and other make-up techniques.

THTR 17 — Acting for the Camera 3 Units
(C-ID THTR 192) 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
Prerequisite: THTR 11
Study in performance for TV and films. Background, methodology and techniques of acting for the camera. Includes TV equipment and how to make it work for the TV actor; study of image, type, and character, evaluation and use of scripts and monologues with practical exercises and on-camera scenes in various styles such as TV drama, sit-coms, commercials. Assists students to prepare for an occupation in the performing areas of television and film.

THTR 18 — Technical Theater Practicum 1 Unit
(C-ID THTR 192) Degree Applicable, CSU, UC
(May be taken for option of letter grade or Pass/No Pass)
54 hours lab
Prerequisite: THTR 11
Introduction to tutoring, with an emphasis on tutoring strategies, three-dimensional art forms. Covers design, pre-construction analysis, and cost estimates for projects. Includes use of equipment for oxyfuel welding, metal arc welding (GMAW), gas tungsten arc welding (GTAW), shielded metal arc welding (SMAW), and flux-cored arc welding (FCAW). Includes demonstrations and exercises in welding as it relates to the art industry.

THTR 19 — Theatrical Costuming 3 Units
(C-ID THTR 174) Degree Applicable, CSU, UC
36 hours lecture
54 hours lab
Theatrical costuming design and construction. Includes the study of costume history, principles of costume design, fibers and textiles, basic costume construction, and design rendering techniques. Costume crew assignments for major productions will provide practical instruction in actual performance demands on costumes and their proper maintenance. Class is suitable for people interested in costuming for theater, dance, film, television, and reenactments.

THTR 25 — Theatrical Playwriting 3 Units
Degree Applicable, CSU
54 hours lecture
Advisory: Eligibility for ENGL 1A
Playwriting for the stage. Students will create and critique their own plays, as well as study and critique plays from established authors and productions. Includes basics of linear, episodic, ‘A’-’B’ and ritual structures.

THTR 60 — Children’s Theater 2 Units
Degree Applicable, CSU
54 to 162 hours lab
Advisory: Eligibility for ENGL 1A
Practice of children’s theater through the creation and performance of new work for young audiences. Includes experience in story development, design, directing and performance culminating in the practical application of a series of public presentations.

THTR 99 — Special Projects in Theater 1 to 2 Units
Degree Applicable, CSU
54 to 108 hours lab
In order to offer students recognition for their academic interests and ability, and the opportunity to explore their disciplines in greater depth, the various departments from time to time offer Special Projects courses. The content of each course and the methods of study vary from semester to semester and depend on the particular project under consideration. Students must have instructor’s authorization before enrolling in this class. Students who repeat this course will make individual contracts with the instructor to ensure that proficiencies are enhanced.

WELD 30 — Metal Sculpture 2 Units
(C-ID THTR 192) Degree Applicable, CSU
(May be taken for option of letter grade or Pass/No Pass)
18 hours lecture
54 hours lab
Advisory: Eligibility for READ 100
Application of strategic reading processes and approaches to active learning.

WELD 40 — Introduction to Welding 2 Units
(C-ID THTR 192) Degree Applicable, CSU
(May be taken for option of letter grade or Pass/No Pass)
18 hours lecture
54 hours lab
Introduction to tutoring, with an emphasis on tutoring strategies, three-dimensional art forms. Covers design, pre-construction analysis, and cost estimates for projects. Includes use of equipment for oxyfuel welding, metal arc welding (GMAW), gas tungsten arc welding (GTAW), shielded metal arc welding (SMAW), and flux-cored arc welding (FCAW). Includes demonstrations and exercises in welding as it relates to the art industry.

WELD 10A — Introduction to Tutoring 1 Unit
Not Degree Applicable
(May be taken for option of letter grade or Pass/No Pass)
18 hours lecture
Introduction to tutoring, with an emphasis on tutoring strategies, problem solving, and working with a diverse student population.

WELD 10B — Tutoring in the English Language 1 Unit
Not Degree Applicable
(May be taken for option of letter grade or Pass/No Pass)
18 hours lecture
Advisory: Eligibility for ENGL 1A
Tutoring in the English language with an emphasis on approaches to working with students on written drafts and addressing the needs of non-native speakers.

WELD 10C — Tutoring as a Supplemental Instructor 1 Unit
Degree Applicable
(May be taken for option of letter grade or Pass/No Pass)
18 hours lecture
Tutoring as a Supplemental Instructor with an emphasis on tutoring in the classroom and in small groups under the supervision of a designated instructor.

WELD 10D — Tutoring in Mathematics 1 Unit
Not Degree Applicable
(May be taken for option of letter grade or Pass/No Pass)
18 hours lecture
Application of strategic reading processes and approaches to active learning.

WELD 10R — Tutoring in Reading 1 Unit
Not Degree Applicable
(May be taken for option of letter grade or Pass/No Pass)
18 hours lecture
Application of strategic reading processes and approaches to active learning.

VETERINARY TECHNOLOGY

See Agriculture: Animal Health Technology
### Course Descriptions

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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</thead>
<tbody>
<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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<tr>
<td></td>
<td>54 hours lab</td>
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<tr>
<td></td>
<td>Oxyacetylene fusion welding, non-fusion welding</td>
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<td></td>
<td>and cutting. Develops understanding of and</td>
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<td></td>
<td>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></td>
<td>Electric arc welding, weld symbols, standard</td>
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<td>electrode selection, American Welding Society</td>
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<td>(AWS) procedure</td>
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<tr>
<td>WELD 70A</td>
<td>Beginning Arc Welding</td>
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<td></td>
<td>18 hours lecture</td>
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<td></td>
<td>108 hours lab</td>
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<td>Advisory: WELD 50</td>
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<td>Welding high alloy steel with both Shielded</td>
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<td>Metal Arc (SMAW) and Flux Core Arc (FCAW)</td>
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<td></td>
<td>welding processes in the vertical and</td>
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<td>overhead positions with an introduction to Gas</td>
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<td></td>
<td>Metal Arc (GMAW) and Gas Tungsten (GTAW)</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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<td></td>
<td>18 hours lecture</td>
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<td></td>
<td>108 hours lab</td>
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<td>Advisory: WELD 70A taken prior</td>
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<td></td>
<td>Welding in all positions as applied to the pipe</td>
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<td></td>
<td>industry. Welding processes include shielded</td>
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<td></td>
<td>metal arc welding (SMAW), gas tungsten arc</td>
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<td>welding (GTAW), gas metal arc welding (GMAW),</td>
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<td></td>
<td>flux cored arc welding (FCAW) using a variety of</td>
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<td></td>
<td>materials and configurations on subcritical and</td>
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<td></td>
<td>critical piping and tubing.</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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<td></td>
<td>Advisory: WELD 70A taken prior</td>
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<td></td>
<td>Building construction for the advanced arc</td>
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<td></td>
<td>welding student. Special emphasis will be placed</td>
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<td></td>
<td>on welding symbols and the American Welding</td>
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<td></td>
<td>Society’s (AWS) D1.1 and D1.3.</td>
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<td>WELD 80</td>
<td>Construction Fabrication and Welding</td>
<td>3</td>
<td>Degree Applicable</td>
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<tr>
<td></td>
<td>18 hours lecture</td>
<td></td>
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<tr>
<td></td>
<td>108 hours lab</td>
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<td></td>
<td>Advisory: WELD 40, WELD 51, WELD 70A</td>
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<td></td>
<td>Theory and practical applications of welding</td>
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<td></td>
<td>used in industry and construction. Designed to</td>
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<td></td>
<td>adapt and upgrade skills to industry standards.</td>
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<td>Includes project models such as ornamental</td>
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<td>iron gates and fences and material storage</td>
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<td></td>
<td>components.</td>
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<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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<td></td>
<td>108 hours lab</td>
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<td></td>
<td>Advisory: WELD 70B, WELD 70C</td>
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<td></td>
<td>Welding in all positions as applied to the pipe</td>
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<td></td>
<td>industry. Welding processes include shielded</td>
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<td>metal arc welding (SMAW), gas tungsten arc</td>
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<td>welding (GTAW), gas metal arc welding (GMAW),</td>
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<td></td>
<td>flux cored arc welding (FCAW) using a variety of</td>
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<td>materials and configurations on subcritical and</td>
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<tr>
<td>WELD 90A</td>
<td>Gas Tungsten Arc Welding</td>
<td>3</td>
<td>Degree Applicable, CSU</td>
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<td>(May be taken for option of letter grade or</td>
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<td></td>
<td>Pass/No Pass)</td>
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<td>18 hours lecture</td>
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<td></td>
<td>108 hours lab</td>
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<td></td>
<td>Advisory: WELD 70B taken prior</td>
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<td></td>
<td>Advanced Gas Tungsten Arc Welding (GTAW) or</td>
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<tr>
<td></td>
<td>or tungsten inert gas (TIG) of steel, aluminum,</td>
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<td></td>
<td>corrosion resisting steel(CRES), and exotic</td>
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<td></td>
<td>metals. All position welds with many surfaces</td>
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<td></td>
<td>and transitions.</td>
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<tr>
<td>WELD 90B</td>
<td>Semiautomatic Arc Welding Process</td>
<td>3</td>
<td>Degree Applicable, CSU</td>
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<td>(May be taken for option of letter grade or</td>
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<td>18 hours lecture</td>
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<td></td>
<td>108 hours lab</td>
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<td>Advisory: WELD 70B taken prior</td>
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<td></td>
<td>Semiautomatic Welding Processes including Gas</td>
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<td>Metal Arc Welding (GMAW), Flux Cored Arc</td>
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<td>Welding (FCAW), Submerged Arc Welding (SAW)</td>
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<td></td>
<td>with solid and tubular wires with and without</td>
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<td>gas shielding. All position welds with many</td>
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<td>varying thickness will be covered.</td>
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<tr>
<td>WELD 91</td>
<td>Automotive Welding, Cutting and Modification</td>
<td>1</td>
<td>Degree Applicable</td>
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<tr>
<td></td>
<td>18 hours lecture</td>
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<td></td>
<td>Corequisite: WELD 91L</td>
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<td>(May be taken for option of letter grade or</td>
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<td>Pass/No Pass)</td>
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<td>18 hours lecture</td>
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<td>Corequisite: WELD 91L</td>
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<td>Advisory: WELD 70B</td>
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<td></td>
<td>Practical lab applications for sheet metal</td>
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<td>forming, metal inert gas (MIG), tungsten inert</td>
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<td></td>
<td>gas (TIG), resistance spot (RSW), and</td>
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<td>Oxy-fuel welding, plasma arc cutting (PAC) and</td>
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<tr>
<td></td>
<td>Oxy-fuel cutting.</td>
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<td>Includes design, fabrication and assembly of</td>
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<td>automotive suspension and chassis components.</td>
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<tr>
<td>WELD 91L</td>
<td>Automotive Welding, Cutting and Modification Lab</td>
<td>2</td>
<td>Degree Applicable</td>
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<tr>
<td></td>
<td>108 hours lab</td>
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<td></td>
<td>Advisory:WELD 70B</td>
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<tr>
<td></td>
<td>Practical applications for sheet metal forming,</td>
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<td></td>
<td>metal inert gas (MIG), tungsten inert gas (TIG),</td>
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<tr>
<td></td>
<td>resistance spot (RSW), and Oxy-fuel welding,</td>
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<tr>
<td></td>
<td>plasma arc cutting (PAC) and Oxy-fuel cutting.</td>
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<tr>
<td></td>
<td>Includes design, fabrication and assembly of</td>
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<tr>
<td></td>
<td>automotive suspension and chassis components.</td>
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<tr>
<td>WELD 96</td>
<td>Work Experience in Welding</td>
<td>1 to 4</td>
<td>Degree Applicable</td>
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<td></td>
<td>(May be taken for Pass/No Pass only)</td>
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<td></td>
<td>75 to 300 hours lab</td>
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<td>Advisory: WELD 70B</td>
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<td></td>
<td>Provides actual on-the-job experience in</td>
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<td>welding at an approved work site which is</td>
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<td>related to classroom instruction. A minimum of</td>
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<td>75 paid or 60 non-paid clock hours per semester</td>
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<td>of supervised work is required for each unit of</td>
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<td>credit.</td>
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**Catalog Cover**

2015-16 Mt. San Antonio College Catalog
SCHOOL OF CONTINUING EDUCATION (ADULT EDUCATION) COURSES
Noncredit courses are designed to meet the needs and capabilities of those students who do not desire or need to obtain college unit credit or who need further preparation for credit-level work. These courses provide developmental, occupational and other general education opportunities. Courses and programs are defined categorically under the California Education Code, Section 84711, whereby state funding is authorized for specific categories. Categories currently provided by Mt. SAC noncredit include: Basic Skills (including tutoring), English as a Second Language, Citizenship, Programs for the Adults with Disabilities, Vocational Courses, Education for Older Adults, and additional courses qualified for adult education curricula.

Student Services
Admissions and Registration
For School of Continuing Education (noncredit) and Community Services (fee-based) offerings, admission and registration are completed using a registration card. However, enrollment in ESL and/or Adult Basic Education and Health Career courses REQUIRE assessment and orientation prior to registration (see explanations, following). Students may register for most courses at any time during the semester, on a space available basis.

Assessment
Adult Basic Education students are assessed prior to enrolling in courses. Additional assessments are available for specific needs. Career assessment identifies career interest and goals. For more information, contact (909) 274-4845.

ESL students must be assessed prior to enrollment. Placement testing is offered every Thursday, year-round. Multilingual assistance is available. For more information, contact (909) 274-5235.

Health careers students enrolling in nursing assistant, home support, or language. Additional assessments are available for specific needs. Career assessment identifies career interest and goals. For more information, contact (909) 274-4845.

Orientation
Adult Basic Education and ESL students must attend an orientation session prior to registration. Orientation sessions are generally offered immediately after assessment. Health career orientations are scheduled prior to the start of each cohort.

Counseling and Advisement
Educational advisement services are available throughout the semester through the Adult Basic Education Department. To schedule an individual appointment, please call the Adult Basic Education Department, (909) 274-4845.

The Adult Basic Education and ESL departments provide counselors to serve their students. Assistance to all noncredit students includes development of educational and career plans, identification of personal, academic and career goals, career development, transitioning to credit programs and work, and assessment of special needs.

Fees and Expenses
There is no tuition for noncredit courses. However, some courses include a fee for materials provided to students. Prices for fee-based community courses vary. In addition, all students who park on the Mt. San Antonio College campus must have a valid, current parking permit. Student parking permits may be purchased at the Bursar's Office. One-day parking permits may be purchased at various parking lots on campus. See campus map for details. Books and supplies needed for a class are the responsibility of the student unless specifically noted as provided by a material fee.

Vocational Programs
The Division offers courses and certificates in vocational and health career areas. Additionally, many credit vocational classes offer a minimum number of seats available to School of Continuing Education students for noncredit. Students who enroll in these classes in accordance with procedures outlined in the School of 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 221 of this catalog.)

Students wishing to complete a noncredit certificate program in one of the vocational areas of study must apply to the School of Continuing Education Division office, building 40, room 104. For further information, please call (909) 274-4220.

Adult Basic Education
The Adult Basic Education department is committed to providing basic skills instruction and support services that prepare adult students to transition into college and employment. These services are offered at no cost:

- Basic Skills Instruction (Reading, Writing and Mathematics)
- High School Equivalency Preparation (GED, HiSet)
- Adult High School Diploma Program
- High School Credit Recovery
- Summer High School Program
- Student Athlete Tutoring (WIN Program)
- Armed Services Vocational Aptitude Battery (ASFVAB) Preparation
- Support Services to EDD and WIOA students
- Academic and Career Counseling/Advising
- Computer Literacy and Keyboarding Classes

- Typing Test Certification
- In-Home Support Services Training

For more information on Adult Basic Education programs, contact (909) 274-4845.

English as a Second Language
Classes and programs are available for English language learners at all levels of proficiency, from low literacy to advanced, ready to transition into credit or career pathways. Classes and services include:

- Orientation and 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 Pre, A, B, and C; Writing Pre, A, B, and C)
- Specialized courses (TOEFL preparation, Citizenship preparation)
- Supplemental workshops, tutoring, and conversation groups
- Academic and career counseling, educational planning, and annual career conference
- Workshops and classroom presentations on college and career options

For more information on ESL programs located in the Language Center, Building 66, contact (909) 274-5235.

Language Learning Center
Mt. San Antonio College's Language Learning Center (LLC) provides faculty guided, as well as independent, learning opportunities for ESL, AMLA, Arabic, Chinese, French, German, Italian, Japanese, Spanish and Sign Language. Located in the Learning Technology Center, Building 6, room 264, the LLC serves both credit and noncredit students learning a language. Users of the LLC may register year-round. Offerings include:

- Interactive language software in all supported languages
- DVD's, videos, audio recordings
- Pronunciation software
- Computer Aided Testing (CATS) for the FFA and other licensing boards

For more information on the LLC, contact (909) 274-4580.

Health Careers Resource Center (HCRC)
The Center provides the resources to increase student knowledge base, to learn new skills and to reinforce previously learned skills. Resources are provided to Mt. SAC credit and noncredit health career students. The HCRC provides a state-of-the-art learning lab environment to:

- develop new health related skills/knowledge
- update prior or current knowledge
- participate in simulated clinical activities which will promote success in the health care industry.
The Center is open to current Mt. SAC credit and noncredit health career students only.

Some of the campus programs/departments actively utilizing the center include:

**Technology and Health Division**
- Medical Services – EMT, Paramedic
- Mental Health Technology
- Associate Degree Nursing
- Radiologic Technology
- Respiratory Therapy

**School of Continuing Education Division**
- Long-Term Certified Nursing Assistant (C.N.A.)
- IV Therapy
- Home Health Aide
- In-Home Support Services
- Phlebotomy Technician

### Education for Older Adults
Courses designed for older adults (age 55+ years*) provide the full continuum of education from vocational classes to the pursuit of long-standing educational goals. Classes are offered in the health, and vocational areas, and are conducted at various senior and community centers and residential facilities throughout the Mt. San Antonio College District.

**Mountie Volunteer Program (MVP)**
Partnering with the Retired Senior Volunteer Program (RSVP), the MVP Program coordinates and provides volunteer opportunities for participants, and provides for the recruiting and screening of potential volunteers.

**Generations Program**
The Generations Program provides educational activities which foster intergenerational relationships that link generations for the good of society, such as student athletes providing volunteer hours for the Education for Older Adults program.

For more information on Education for Older Adults, please call (909) 274-4192.

### Other Community Education Services and Programs
- Fee-based programs related to career development and personal enrichment for community members
- College 4 Kids and Youth Programs
- CPR and First Aid
- Vehicle Safety Programs (Motorcycle Safety and Traffic School)
- Farm Tours
- Wildlife Sanctuary Tours
- Study Skills Laboratory for Disabled Students Programs and Services

For more information regarding School of Continuing Education Services and Programs, contact (909) 274-4220.

*Note: Although courses are designed for the older adult, anyone 18 years of age and older may enroll.

### NONCREDIT LIST OF CERTIFICATES

#### Certificates of Competency

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<td>English as a Second Language</td>
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<td>ESL, Beginning Level</td>
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<tr>
<td>ESL, Intermediate Level</td>
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<td>ESL, Advanced Level</td>
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#### Certificates in Occupational Training

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<td>Payroll</td>
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<td>Agricultural Science</td>
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<td>Landscape and Park Maintenance</td>
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<td>Landscape Equipment Technology</td>
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<td>Landscape Irrigation</td>
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<tr>
<td>Livestock Management</td>
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<td>Nursery Production Management</td>
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<td>Pet Science</td>
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<td>Sports Turf Management</td>
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<td>Tree Care and Maintenance</td>
<td>226</td>
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<tr>
<td>Business Management - Level 1</td>
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<td>Business Management - Level 2</td>
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<td>Business Management - Level 3</td>
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<td>Human Resource Management</td>
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<td>International Business - Level 1</td>
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<td>International Business - Level 2</td>
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<td>Retail Management - Level 2</td>
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<td>Retail Management - Level 3</td>
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<td>Small Business Management - Level 1</td>
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<td>Small Business Management - Level 2</td>
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<td>Small Business Management - Level 3</td>
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<th>Certificate</th>
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<td>Computer and Networking Technology - Level 1</td>
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<td>Electronic Assembly and Fabrication</td>
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<td>Electronic Systems Technology - Level 1</td>
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<td>Electronic Systems Technology - Level 2</td>
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<td>Electronics Technology</td>
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<td>Electronics and Computer-Engineering Technology</td>
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<td>Health Careers</td>
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<td>Administrative Assistant - Level 1</td>
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<td>Administrative Assistant - Level 2</td>
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<td>Office Computer Applications</td>
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<td>Photographic</td>
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<td>Photography - Level 1</td>
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<td>Welding Technologies</td>
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<td>Welding</td>
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<tr>
<td>Licensed Welder</td>
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<tr>
<td>Welding: Automotive Welding, Cutting and Modification</td>
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<td>Welding: Gas Tungsten Arc Welding</td>
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<tr>
<td>Welding: Semi-automatic Arc Welding</td>
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### NONCREDIT CERTIFICATES OF COMPETENCY

Noncredit Certificates of Competency represent sequences of courses in Basic Skills, Career Development, English as a Second Language, or Secondary Education, which allow the student to develop individual competencies based on their personal educational goals and objectives. Each certificate is unique, but all provide the student an opportunity to gain skills necessary to advance in their careers, transition into a new career or prepare for future advanced academic studies and training.

Students are encouraged to gain more information by calling the College telephone number listed in each of the four specific Certificates of Competency that follow.

### CERTIFICATES OF COMPETENCY

**Adult High School Diploma**
- **Basic Career Readiness**
- **Basic Skills**
- **Career Development**
- **English as a Second Language**
- **ESL – Beginning Level**
- **ESL – Intermediate Level**
- **ESL – Advanced Level**
- **GED Preparation**
- **VESL Career Paths**

#### Adult High School Diploma

**#31598**

The High School Program provides all courses needed to satisfy requirements for a high school diploma, which will increase future employment and higher educational opportunities. High school credits may be granted for previous equivalent courses taken at accredited institutions.

**Certificate Requirements:**
Students will complete a total of 160 high school credits in the following disciplines: natural sciences, social and behavioral sciences, humanities, English, mathematics, health, vocational education along with competencies in writing, math and reading.

A minimum of 20 residency credits must be completed at Mt. San Antonio College.

For detailed information regarding course and graduation requirements, please call 909-274-4937.

#### Basic Career Readiness

**#30805**

This certificate provides courses that will improve the entrance level basic skills needed for employment. Career Development includes personal career assessment, basic interview skills, and job search techniques that students can apply to current and future employment. Students will increase basic skills in reading comprehension, writing, math and basic computer literacy. Students are required to take Career Development and may take either Personal Computer Applications or Adult Basic Education or both. For more information, contact the Adult Basic Education Department at 909-274-4845.

**Certificate Requirements:**
- **Required Courses:**
- **Course ID** | **Course Title**
  - BS ABE02 | Adult Basic Education
  - BS ABE05 | Career Development
  - BS LRN06 | Personal Computer Applications

#### Basic Skills

**#24058**

The Basic Skills Certificate of Competency provides courses that will improve basic reading, writing, and mathematics skills. Improved literacy will benefit students in obtaining employment, advancing in their careers, or preparing for future advanced academic studies. Students will progress through different levels within this sequence based on individual need. Some students who improve skill levels in reading and mathematics and wish to take the military entrance exam (ASVAB) can take the ASVAB Prep course as an elective. Other elective courses provide students with the necessary admissions, assessment, educational planning, and enrollment into credit courses. For more information, please call (909) 274-4845.

**Certificate Requirements:**
- **Course ID** | **Course Title**
  - BS ABE02 | Adult Basic Education
  - BS ABE05 | Career Development
  - BS LRN06 | Personal Computer Applications

#### English as a Second Language

**#24054**

ESL students are placed within the following sequence of courses according to their English abilities. Students progress through this sequence based on individual need before transferring into credit courses or employment. Supplemental courses in speaking, writing and vocational language will assist their progress through the sequence and may be taken along with level classes as needed.

Courses are offered all year long, including winter and summer intersessions. Classes are offered days, evenings and weekends. For more information, please call (909) 274-5235.
ESL – Beginning Level #30375

ESL students are placed within the following sequence of beginning courses according to their English abilities. Students progress through this sequence based on individual need transitioning into advanced courses or employment. Supplemental courses in speaking, writing and vocational language will assist their progress through the sequence and may be taken along with level classes as needed.

Courses are offered all year long, including winter and summer intersessions. Classes are offered days, evenings and weekends. For more information, please call (909) 275-5235.

Certificate Requirements:
Required Courses:
Course ID  Course Title
ESL PLVL1  ESL – Pre-Level 1
ESL LVL1  ESL – Level 1
ESL LVL2  ESL – Level 2
ESL LVL3  ESL – Level 3
ESL LVL4  ESL – Level 4
ESL LVL5  ESL – Level 5
ESL LVL6  ESL – Level 6

Elective Courses:
Course ID  Course Title
ESL SPKA  ESL – Speaking A
ESL SPKB  ESL – Speaking B
ESL SPKBC  ESL – Speaking C
ESL TOEFL  TOEFL Preparation
ESL WRTA  ESL Writing A
ESL WRTB  ESL Writing B
ESL WRTC  ESL Writing C

ESL – Intermediate Level #30376

ESL students are placed within the following sequence of advanced courses according to their English abilities. Students progress through this sequence based on individual need transitioning into credit courses or employment. Supplemental courses in speaking, writing and vocational language will assist their progress through the sequence and may be taken along with level classes as needed.

Courses are offered all year long, including winter and summer intersessions. Classes are offered days, evenings and weekends. For more information, please call (909) 275-5235.

Certificate Requirements:
Required Courses:
Course ID  Course Title
ESL LVL3  ESL – Level 3
ESL LVL4  ESL – Level 4

Elective Courses:
Course ID  Course Title
ESL SPKB  ESL – Speaking B
ESL WRTB  ESL Writing B
ESL LANG2  ESL Computer and Language Skills Lab

ESL – Advanced Level #30376

ESL students are placed within the following sequence of advanced courses according to their English abilities. Students progress through this sequence based on individual need transitioning into credit courses or employment. Supplemental courses in speaking, writing and vocational language will assist their progress through the sequence and may be taken along with level classes as needed.

Courses are offered all year long, including winter and summer intersessions. Classes are offered days, evenings and weekends. For more information, please call (909) 275-5235.

Certificate Requirements:
Required Courses:
Course ID  Course Title
ESL LVL5  ESL – Level 6

Elective Courses:
Course ID  Course Title
ESL SPKC  ESL – Speaking C
ESL WRRC  ESL Writing C
ESL LANG2  ESL Computer and Language Skills Lab
ESL LVL3  ESL English for Special Uses
ESL TOEFL  TOEFL Preparation
ESL VHLLT  ESL for Health Professionals

GED Preparation #30778

Improve the academic skills needed for passing the General Education Development (GED) exam. Math, reading, writing, science and social studies. Progress in a sequence based on individual need.

Certificate Requirements:
Course ID  Course Title
BS GEDMA  GED Preparation: Mathematics
BS GEDRD  GED Preparation: Language Arts, Reading
BS GEDSC  GED Preparation: Science
BS GEDSS  GED Preparation: Social Studies
BS GEDWR  GED Preparation: Science

Noncredit Vocational Training Certificates of Completion

California Community College Adult Education Programs are authorized to offer short-term vocational programs with high employment potential. The demonstration of need to offer these programs within the College service area is determined by manpower needs projections from the California Occupational Information System (COIS), or surveys of employer needs in the Continuing, or state licensing mandates and/or certification. However, if a course needed for certificate completion is not offered in a timely manner, the course may be taken for credit and applied to the noncredit certificate.

Getting Help
For more information regarding occupational training certificates, please call the Division office at (909) 274-4220. Educational Advisers are available to assist students with Career and Education Planning. Advisers are also available by appointment during the semester. Please call (909) 274-4845 to schedule an appointment.

Noncredit Vocational Training Certificates of Completion are available in the following programs:
School of Continuing Education

Accounting:
- Bookkeeping
- Computerized
- Payroll

Agricultural Sciences:
- Floral Design
- Horse Ranch Management
- Interior Landscaping
- Landscape and Park Maintenance
- Landscape Equipment Technology
- Landscape Irrigation
- Livestock Management
- Veterinary Management
- Pet Science
- Sports Turf Management
- Tree Care and Maintenance

Business Management:
- Business Management – Level 1
- Business Management – Level 2
- Business Management – Level 3
- Human Resource Management
- International Business – Level 1
- International Business – Level 2
- Retail Management – Level 1
- Retail Management – Level 2
- Retail Management – Level 3
- Small Business Management – Level 1
- Small Business Management – Level 2
- Small Business Management – Level 3

Electronics:
- Computer and Networking Technology – Level 1
- Computer Systems Technology
- Electronic Assembly and Fabrication
- Electronic Systems Technology – Level 1
- Electronic Systems Technology – Level 2
- Electronic Technology
- Electronics and Computer-Engineering Technology
- Electronics Communications
- Electronics: Industrial Systems

Health Careers:
- Certified Nursing Assistant Preparation

Interior Design:
- Interior Design – Level 1

Manufacturing Technology:
- MasterCAM
- Office Technology:
  - Administrative Assistant – Level 1
  - Administrative Assistant – Level 2
- Office Computer Applications

Photographics:
- Photography - Level I

Welding Technology:
- Welding
- Licensed Welder
- Welding: Automotive Welding, Cutting and Modification
- Welding: Gas Tungsten Arc Welding
- Welding: SemiAutomatic Arc Welding

Accounting – Bookkeeping #24089

The Bookkeeping Certificate provides the student with the basic skills and knowledge for entry-level positions within the clerical/accounting field. Common duties performed in this field are posting transactions to journals/ledgers, accounts receivable, accounts payable, inventory tracking/reporting, bank reconciliation, expense reporting and account analysis. The sequence can be completed in one year, and courses are offered Fall and Spring semesters.

Certificate Requirements:
- Course ID Course Title
  - VOC BA07 Principles of Accounting – Financial or
  - VOC BA72 Bookkeeping – Accounting
  - VOC BA75 Using Microcomputers in Financial Accounting
  - VOC BA76 Using Microcomputers in Managerial Accounting or
  - VOC BA68 Business Mathematics

Accounting – Computerized #24246

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

Certificate Requirements:
- Completion of Accounting – Bookkeeping Certificate
- PLUS the following courses:
- Course ID Course Title
  - VOC BA07 Principles of Accounting – Financial or
  - VOC BA72 Bookkeeping – Accounting
  - VOC BA75 Using Microcomputers in Financial Accounting
  - VOC BA76 Using Microcomputers in Managerial Accounting or
  - VOC BA68 Business Mathematics

Accounting – Payroll #24074

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

Certificate Requirements:
- Completion of Accounting – Bookkeeping Certificate
- PLUS the following courses:
- Course ID Course Title
  - VOC BA70 Payroll and Tax Accounting
  - VOC BS75 Using Microcomputers in Financial Accounting or
  - VOC BA76 Using Microcomputers in Managerial Accounting

VOC AGR25 Floral Design

Floral Design #24242

This sequence is offered in the evening only on campus and at off-campus locations and can be completed in two years. Students completing all three courses will have skills and knowledge to seek jobs in floral design beyond entry-level positions, i.e., first-line supervision and/or management and Floral Designers.

Certificate Requirements:
- Course ID Course Title
  - VOC AGR25 Floral Design – 1
  - VOC AGR26 Floral Design – 2
  - VOC AGR27 Floral Design – 3

Horse Ranch Management #24340

This certificate program is designed to give students basic skills on horse ranches and agriculture sales and services.

Certificate Requirements:
- Course ID Course Title
  - VOC AGN02 Animal Nutrition
  - VOC AGN94 Animal Breeding
  - VOC AGL16 Horse Production or
  - VOC AGL18 Horse Ranch Management
  - VOC AGL19 Horse Hoof Care
  - VOC AGL96 Animal Sanitation and Disease Control
  - VOC AGL97 Artificial Insemination of Livestock
### Interior Landscaping  
**#24342**  
This certificate is designed to give students basic skills in the design, installation and maintenance of interior plants that are used in residences, offices, hotels, malls, restaurants and other locations.  
**Certificate Requirements:**  
<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 AGR15</td>
<td>Interior Landscaping</td>
</tr>
<tr>
<td>VOC AGR24</td>
<td>Integrated Pest Management</td>
</tr>
<tr>
<td>VOC AGR29</td>
<td>Ornamental Plants – Herbaceous</td>
</tr>
<tr>
<td>VOC AGR32</td>
<td>Landscaping and Nursery Management</td>
</tr>
<tr>
<td>VOC AGN64</td>
<td>Landscape Irrigation</td>
</tr>
</tbody>
</table>

### Landscape Equipment Technology  
**#24111**  
This certificate is designed to give students basic skills to seek employment in equipment repair, at golf courses, rental yards and small equipment repair shops.  
**Certificate Requirements:**  
<table>
<thead>
<tr>
<th>Course ID</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>VOC AGR52</td>
<td>Hydraulics</td>
</tr>
<tr>
<td>VOC AGR53</td>
<td>Small Engine Repair I</td>
</tr>
<tr>
<td>VOC AGR55</td>
<td>Diesel Engine Repair</td>
</tr>
<tr>
<td>VOC AGR56</td>
<td>Engine Diagnostics</td>
</tr>
<tr>
<td>VOC AGR57</td>
<td>Power Train Repair</td>
</tr>
</tbody>
</table>

### Livestock Production Management  
**#24057**  
This certificate is designed to give students basic skills in livestock production management for employment opportunities on farms, ranches and agriculture sales and services.  
**Certificate Requirements:**  
<table>
<thead>
<tr>
<th>Course ID</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>VOC AGL14</td>
<td>Swine Production</td>
</tr>
<tr>
<td>VOC AGL17</td>
<td>Sheep Production</td>
</tr>
<tr>
<td>VOC AGL30</td>
<td>Beef Production</td>
</tr>
<tr>
<td>VOC AGL34</td>
<td>Livestock Judging and Selection</td>
</tr>
<tr>
<td>VOC AGL97</td>
<td>Artificial Insemination of Livestock</td>
</tr>
</tbody>
</table>

### Landscape Irrigation  
**#24088**  
This certificate is designed to give students basic skills in irrigation design, repair installation, water management and troubleshooting.  
**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 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>

### Landscape and Park Maintenance  
**#24113**  
This certificate is designed to give students basic skills in park landscape maintenance. Courses offered prepare students with skills that are appropriate for the maintenance of grounds, property or parks.  
**Certificate Requirements:**  
<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 AGR51</td>
<td>Tractor and Landscape Equipment Operations</td>
</tr>
<tr>
<td>VOC AGN63</td>
<td>Landscape Irrigation System Management</td>
</tr>
<tr>
<td>VOC AGN75</td>
<td>Urban Arboriculture</td>
</tr>
</tbody>
</table>

### Landscape Irrigation System Management  
**#24088**  
This certificate is designed to give students basic skills in irrigation design, repair installation, water management and troubleshooting.  
**Certificate Requirements:**  
<table>
<thead>
<tr>
<th>Course ID</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>VOC AGR01</td>
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<tr>
<td>VOC AGR51</td>
<td>Tractor and Landscape Equipment Operations</td>
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</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>
</tbody>
</table>

### Nursery Production Management  
**#24209**  
This certificate is designed to give students basic skills in production and marketing of plants and dry goods in the wholesale and retail nursery industry.  
**Certificate Requirements:**  
<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 AGR29</td>
<td>Ornamental Plants – Herbaceous</td>
</tr>
<tr>
<td>VOC AGR32</td>
<td>Landscaping and Nursery Management</td>
</tr>
<tr>
<td>VOC AGR50</td>
<td>Soil Science and Management</td>
</tr>
<tr>
<td>VOC AGR64</td>
<td>Landscape Irrigation – Drip and Low Volume</td>
</tr>
</tbody>
</table>

### Park Management  
**#24374**  
This certificate program is designed to give students skills required for entry level positions in park management.  
**Certificate Requirements:**  
<table>
<thead>
<tr>
<th>Course ID</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>VOC AGR04</td>
<td>Park Management</td>
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<tr>
<td>VOC AGR05</td>
<td>Park Facilities</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  
**#24172**  
This certificate program is designed to give students basic skills in production and marketing of pets at the wholesale and retail level.  
**Certificate Requirements:**  
<table>
<thead>
<tr>
<th>Course ID</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>VOC AGN01</td>
<td>Animal Science</td>
</tr>
<tr>
<td>VOC AGN02</td>
<td>Animal Nutrition</td>
</tr>
<tr>
<td>VOC AGN51</td>
<td>Animal Handling and Restraint</td>
</tr>
<tr>
<td>VOC AGN94</td>
<td>Animal Breeding</td>
</tr>
<tr>
<td>VOC AGL96</td>
<td>Animal Sanitation and Disease Control</td>
</tr>
<tr>
<td>VOC AGP70</td>
<td>Pet Shop Management</td>
</tr>
<tr>
<td>VOC AGP71</td>
<td>Canine Management</td>
</tr>
<tr>
<td>VOC AGP72</td>
<td>Feline Management</td>
</tr>
<tr>
<td>VOC AGP73</td>
<td>Tropical and Coldwater Fish Management</td>
</tr>
<tr>
<td>VOC AGP74</td>
<td>Reptile Management</td>
</tr>
<tr>
<td>VOC AGP76</td>
<td>Aviculture – Cage and Aviary Birds</td>
</tr>
<tr>
<td>VOC BM66</td>
<td>Small Business Management</td>
</tr>
</tbody>
</table>
## Business Management – Level 1
### #24108
The Business Management – Level 1 Certificate is designed to introduce students to the role of management in business. Management is the efficient use of human and capital resources to accomplish organizational objectives. Students will be exposed to the terms, trends, organizational structure, and opportunities inherent in business management. Upon completion of the Business Management – Level 1 Certificate, students may qualify for an entry-level management position in California’s diverse economy.

### Certificate Requirements:
- **Course ID**
- **Course Title**
  - VOC BM20 Principles of Business
  - VOC BM61 Business Organization and Management
  - VOC BS36 Principles of Marketing
  - VOC BM62 Human Resource Management
  - VOC CSB15 Microcomputer Applications

## Business Management – Level 2
### #24110
This certificate builds upon the Level 1 Certificate to provide students with proven business tools that will enhance their management careers. Students will be exposed to projects and business simulations that will lead to measurable successes. Business presentations, business planning, team building, conflict resolution, and computer use are core skills developed in this certificate.

### Certificate Requirements:
- **Course ID**
- **Course Title**
  - VOC BM20 Principles of Business
  - VOC BM61 Business Organization and Management
  - VOC BS36 Principles of Marketing
  - VOC BM62 Human Resource Management
  - VOC CSB15 Microcomputer Applications

## Business Management – Level 3
### #24249
Upon completion of the Business Management – Level 3 Certificate, students will have built a foundation of management strategies and practices which will enable them to prosper in an ever-changing business environment. Students will have a strategic perspective of production, marketing, accounting, international business and human resources. Completion of the Business Management – Level 3 Certificate will lead to new opportunities and provide students with a solid foundation upon which to build a management career.

### Certificate Requirements:
- **Course ID**
- **Course Title**
  - VOC BM20 Principles of Business
  - VOC BM61 Business Organization and Management
  - VOC BS36 Principles of Marketing
  - VOC BM62 Human Resource Management
  - VOC BM65 Principles of International Business
  - VOC BM10 Principles of Continuous Quality Improvement
  - VOC BM51 Principles of International Business
  - VOC BM40 Principles of Marketing

## Human Resource Management
### #24320
This introductory certificate exposes students to the business world and the role of human resources. Students become familiar with various approaches to business organization and the strategic nature of human resources. This certificate may aid in the student’s search for an entry-level job in the business world.

### Certificate Requirements:
- **Course ID**
- **Course Title**
  - VOC BM20 Principles of Business
  - VOC BM61 Business Organization and Management
  - VOC BM62 Human Resource Management

## International Business – Level 1
### #24107
This specialized business certificate is intended to prepare the student to work in the unique and dynamic environment of international business. The program also prepares the student as a business management generalist for companies conducting international trade. This program will afford career opportunities for entry-level employment in international sales and marketing.

### Certificate Requirements:
- **Course ID**
- **Course Title**
  - VOC BM20 Principles of Business
  - VOC BM51 Principles of International Business
  - VOC BS36 Principles of Marketing

## International Business – Level 2
### #24431
In the International Business – Level 2 Certificate, the student will learn methods and approaches to managing the complexities of doing business in an international environment. Students acquire both theoretical knowledge and practical skills related to managing and marketing within the global arena. Students active in the workforce will acquire new skills that are highly desirable in a fast-paced dynamic global environment, with an emphasis on the small business perspective.

### Certificate Requirements:
- **Course ID**
- **Course Title**
  - VOC BM20 Principles of Business
  - VOC BM51 Principles of International Business
  - VOC BS36 Principles of Marketing
  - VOC BM61 Business Organization and Management
  - VOC BM65 Principles of International Business
  - VOC BM66 Small Business Management
**Retail Management – Level 1**
#24418
Introductory certificate exposes students to the business world and the role of retail distribution. Students become familiar with careers in retail management, as well as the latest trends in this fast changing field. This certificate may aid the student’s search for an entry-level job in retail management.

**Certificate Requirements:**

<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 CSB15</td>
<td>Microcomputer Applications</td>
</tr>
<tr>
<td>VOC FSH62</td>
<td>Retail Store Management</td>
</tr>
<tr>
<td>or</td>
<td>Retail Store Management and Merchandising</td>
</tr>
<tr>
<td>VOC B550</td>
<td>Business Communications</td>
</tr>
</tbody>
</table>

**Retail Management – Level 2**
#24359
This intermediate certificate builds upon the Level 1 Certificate to expose students to the various functions of managers in retail positions. Fundamentals of business organization, retail marketing and staffing provides the student a solid foundation from which to build a career in retail management.

**Certificate Requirements:**

<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 CSB15</td>
<td>Microcomputer Applications</td>
</tr>
<tr>
<td>VOC FSH62</td>
<td>Retail Store Management</td>
</tr>
<tr>
<td>or</td>
<td>Retail Store Management and Merchandising</td>
</tr>
<tr>
<td>VOC BA11</td>
<td>Fundamentals of Accounting</td>
</tr>
<tr>
<td>VOC BM61</td>
<td>Business Organization and Management</td>
</tr>
<tr>
<td>VOC BM62</td>
<td>Human Resource Management</td>
</tr>
<tr>
<td>VOC BS36</td>
<td>Principles of Marketing</td>
</tr>
<tr>
<td>VOC BA07</td>
<td>Principles of Accounting – Financial</td>
</tr>
<tr>
<td>VOC BM60</td>
<td>Human Relations in Business</td>
</tr>
<tr>
<td>VOC BO26</td>
<td>Oral Communications for Business</td>
</tr>
</tbody>
</table>

**Retail Management – Level 3**
#24383
Students completing the advanced Level 3 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.

**Certificate Requirements:**

<table>
<thead>
<tr>
<th>Course ID</th>
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</tr>
</thead>
<tbody>
<tr>
<td>VOC B025</td>
<td>Business Communications</td>
</tr>
<tr>
<td>VOC CSB15</td>
<td>Microcomputer Applications</td>
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<tr>
<td>VOC FSH62</td>
<td>Retail Store Management</td>
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<tr>
<td>or</td>
<td>Retail Store Management and Merchandising</td>
</tr>
<tr>
<td>VOC B550</td>
<td>Business Communications</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 BS36</td>
<td>Principles of Marketing</td>
</tr>
<tr>
<td>VOC BM60</td>
<td>Human Relations in Business</td>
</tr>
<tr>
<td>VOC BM61</td>
<td>Business Organization and Management</td>
</tr>
<tr>
<td>VOC BM62</td>
<td>Human Resource Management</td>
</tr>
<tr>
<td>VOC BM10</td>
<td>Principles of Continuous Quality Improvement (CQI)</td>
</tr>
<tr>
<td>VOC CSB15</td>
<td>Microcomputer Applications</td>
</tr>
</tbody>
</table>

**Small Business Management – Level 2**
#24034
The Small Business Management – Level 2 Certificate provides students with practical small business tools. It focuses on issues such as motivation, teamwork and leadership skills that lead to enhanced productivity through the development of people. Completion of this certificate will lead to new career opportunities for those currently employed in the small business arena.

**Certificate Requirements:**

<table>
<thead>
<tr>
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<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>VOC BM20</td>
<td>Principles of Business</td>
</tr>
<tr>
<td>VOC BM66</td>
<td>Small Business Management</td>
</tr>
<tr>
<td>VOC BS36</td>
<td>Principles of Marketing</td>
</tr>
<tr>
<td>VOC BM60</td>
<td>Human Relations in Business</td>
</tr>
<tr>
<td>VOC BM61</td>
<td>Business Organization and Management</td>
</tr>
<tr>
<td>VOC BM62</td>
<td>Human Resource Management</td>
</tr>
</tbody>
</table>

**Small Business Management – Level 3**
#24034
Upon completion of the Small Business Management – Level 3 certificate, students will have built a foundation of management strategies and practices which will enable them to prosper in an ever-changing small business environment. Computer skills applicable to small business will be developed. Students will have a strategic perspective across all small business functions. Students will acquire the skills and abilities necessary to build a successful business career.

**Certificate Requirements:**

<table>
<thead>
<tr>
<th>Course ID</th>
<th>Course Title</th>
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<td>VOC BM20</td>
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<td>VOC BA07</td>
<td>Principles of Accounting – Financial</td>
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<tr>
<td>VOC BM10</td>
<td>Principles of Continuous Quality Improvement (CQI)</td>
</tr>
<tr>
<td>VOC CSB15</td>
<td>Microcomputer Applications</td>
</tr>
</tbody>
</table>

**Small Business Management – Level 2**
#24034
This certificate is intended to prepare students to enter the computer and networking fields as service technicians with foundations in basic electricity and electronics, operating systems, computer service and troubleshooting, and preparation for the A+ certification examination.

**Certificate Requirements:**

<table>
<thead>
<tr>
<th>Course ID</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>VOC CNT50</td>
<td>PC Servicing</td>
</tr>
<tr>
<td>VOC CNT52</td>
<td>PC Operating Systems</td>
</tr>
<tr>
<td>VOC CNT54</td>
<td>PC Troubleshooting</td>
</tr>
<tr>
<td>VOC CNT60</td>
<td>A+ Certification Preparation</td>
</tr>
<tr>
<td>VOC EL11</td>
<td>Technical Applications in Microcomputers</td>
</tr>
<tr>
<td>or</td>
<td></td>
</tr>
<tr>
<td>VOC CNT54</td>
<td>PC Troubleshooting</td>
</tr>
<tr>
<td>VOC CNT60</td>
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<td>VOC EL11</td>
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<td>or</td>
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</tr>
<tr>
<td>VOC BM60</td>
<td>Human Relations in Business</td>
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<tr>
<td>or</td>
<td></td>
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<tr>
<td>VOC BM61</td>
<td>Business Organization and Management</td>
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<tr>
<td>or</td>
<td></td>
</tr>
<tr>
<td>VOC BM62</td>
<td>Human Resource Management</td>
</tr>
</tbody>
</table>

**Computer Systems Technology – Level I**
#24059
The Computer Systems Technology curriculum encompasses advanced coursework in computer systems circuitry, including microcontrollers and microprocessors.

**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 - Direct Current (DC)</td>
</tr>
<tr>
<td>VOC EL50B</td>
<td>Electronic Circuits (AC)</td>
</tr>
<tr>
<td>VOC EL56</td>
<td>Digital Electronics</td>
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</tr>
<tr>
<td>VOC CNT50</td>
<td>PC Servicing</td>
</tr>
<tr>
<td>VOC CNT52</td>
<td>PC Operating Systems</td>
</tr>
<tr>
<td>VOC CNT54</td>
<td>PC Troubleshooting</td>
</tr>
<tr>
<td>VOC EL11</td>
<td>Technical Applications in Microcomputers</td>
</tr>
<tr>
<td>or</td>
<td></td>
</tr>
<tr>
<td>VOC CNT54</td>
<td>PC Troubleshooting</td>
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<tr>
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<td>Technical Applications in Microcomputers</td>
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<tr>
<td>VOC BM60</td>
<td>Human Relations in Business</td>
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<td>or</td>
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<td>Business Organization and Management</td>
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</tr>
<tr>
<td>VOC BM62</td>
<td>Human Resource Management</td>
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</tr>
<tr>
<td>VOC BM10</td>
<td>Principles of Continuous Quality Improvement (CQI)</td>
</tr>
<tr>
<td>or</td>
<td></td>
</tr>
<tr>
<td>VOC CSB15</td>
<td>Microcomputer Applications</td>
</tr>
</tbody>
</table>
### Electronic Assembly and Fabrication

**#24162**
This certificate prepares students to enter the electronics field as assembly and fabrication technicians. The program provides a series of courses to meet the needs of industry in assembly, soldering/de-soldering skills, and fabrication for both through-hole and surface mount devices (SMD), including skills for various types of cabling and connections.

**Certificate Requirements:**

<table>
<thead>
<tr>
<th>Course ID</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>VOC ELS0A</td>
<td>Electronic Circuits - Current (DC)</td>
</tr>
<tr>
<td>VOC ELS0B</td>
<td>Electronic Circuits (AC)</td>
</tr>
<tr>
<td>VOC EST50</td>
<td>Electrical Fundamentals for Cable Installations</td>
</tr>
<tr>
<td>VOC EL61</td>
<td>Electronic Assembly and Fabrication</td>
</tr>
<tr>
<td>VOC EL62</td>
<td>Advanced Surface Mount Assembly and Rework</td>
</tr>
</tbody>
</table>

### Electronic Systems Technology

**Level 1**

**#24363**
This certificate program provides job skills in the areas of low voltage cable and wire installations used in the telephone industry, computer networks (business and home), home theater, home automation, and home security systems (integrated home systems). Typical job titles in these areas are data or cable technician, and Home Automation Systems.

**Certificate Requirements:**

<table>
<thead>
<tr>
<th>Course ID</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>VOC EST50</td>
<td>Electrical Fundamentals for Cable Installations</td>
</tr>
<tr>
<td>VOC EST52</td>
<td>Fabrication Techniques for Cable Installations</td>
</tr>
<tr>
<td>VOC EST54</td>
<td>Cabling and Wiring Standards</td>
</tr>
<tr>
<td>VOC EST58</td>
<td>Technical Applications in Microprocessors</td>
</tr>
<tr>
<td>VOC ELS58</td>
<td>Computer Applications in Microprocessors</td>
</tr>
<tr>
<td>VOC CSB15</td>
<td>Microcomputer Applications</td>
</tr>
</tbody>
</table>

### Electronics Technology

**Level 2**

**#24073**
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 Certificate
- **PLUS the following courses:**

<table>
<thead>
<tr>
<th>Course ID</th>
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</tr>
</thead>
<tbody>
<tr>
<td>VOC EST50</td>
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<td>Fabrication Techniques for Cable Installations</td>
</tr>
<tr>
<td>VOC EST54</td>
<td>Cabling and Wiring Standards</td>
</tr>
<tr>
<td>VOC EL11</td>
<td>Technical Applications in Microprocessors</td>
</tr>
<tr>
<td>VOC EL12</td>
<td>Computer Simulation/Troubleshooting</td>
</tr>
<tr>
<td>VOC ELS0A</td>
<td>Electronic Circuits - Direct Current (DC)</td>
</tr>
<tr>
<td>VOC ELS0B</td>
<td>Electronic Circuits (AC)</td>
</tr>
<tr>
<td>VOC ELS1</td>
<td>Semiconductor Devices and Circuits</td>
</tr>
<tr>
<td>VOC ELS5</td>
<td>Digital Electronics</td>
</tr>
<tr>
<td>VOC ELS6</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

**#24171**
This one-year program covers the fundamentals of electronics technology. These core courses provide the necessary skills for those seeking entry-level employment as electronics technicians without areas of specialization. A course in customer-relations training is also included.

**Certificate Requirements:**

- **Recommended Electives:**

<table>
<thead>
<tr>
<th>Course ID</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>VOC EL11</td>
<td>Technical Applications in Microprocessors</td>
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<tr>
<td>VOC EL12</td>
<td>Computer Simulation and Troubleshooting</td>
</tr>
<tr>
<td>VOC ELS0A</td>
<td>Electronic Circuits - Direct Current (DC)</td>
</tr>
<tr>
<td>VOC ELS0B</td>
<td>Electronic Circuits (AC)</td>
</tr>
<tr>
<td>VOC ELS1</td>
<td>Semiconductor Devices and Circuits</td>
</tr>
<tr>
<td>VOC ELS3</td>
<td>Communications Circuits</td>
</tr>
<tr>
<td>VOC ELS4A</td>
<td>Industrial Electronics</td>
</tr>
<tr>
<td>VOC ELS4B</td>
<td>Industrial Electronic Systems</td>
</tr>
</tbody>
</table>

### Electronic Systems Technology

**Level 2**

**#24416**
In addition to courses in electronics fundamentals, the Electronics Communications certificate program encompasses the study of both wire-based and wireless forms of analog and digital communications systems. Topics include amplitude and frequency modulation, multiplexing, antennas, transmission lines, and radio wave propagation, as well as microwave systems, including radar and satellite operations.

**Certificate Requirements:**

- **Recommended Electives:**

<table>
<thead>
<tr>
<th>Course ID</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>VOC EL11</td>
<td>Technical Applications in Microprocessors</td>
</tr>
<tr>
<td>VOC EL12</td>
<td>Computer Simulation and Troubleshooting</td>
</tr>
<tr>
<td>VOC ELS0A</td>
<td>Electronic Circuits - Direct Current (DC)</td>
</tr>
<tr>
<td>VOC ELS0B</td>
<td>Electronic Circuits (AC)</td>
</tr>
<tr>
<td>VOC ELS1</td>
<td>Semiconductor Devices and Circuits</td>
</tr>
<tr>
<td>VOC ELS3</td>
<td>Communications Circuits</td>
</tr>
<tr>
<td>VOC ELS4</td>
<td>Industrial Electronics</td>
</tr>
<tr>
<td>VOC TCH60</td>
<td>Customer Relations for the Technician</td>
</tr>
</tbody>
</table>

### Microwave Communications

**#24510**

- **Recommended Electives:**

<table>
<thead>
<tr>
<th>Course ID</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>VOC EL11</td>
<td>Technical Applications in Microprocessors</td>
</tr>
<tr>
<td>VOC EL12</td>
<td>Computer Simulation and Troubleshooting</td>
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<tr>
<td>VOC ELS0B</td>
<td>Electronic Circuits (AC)</td>
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<tr>
<td>VOC ELS1</td>
<td>Semiconductor Devices and Circuits</td>
</tr>
<tr>
<td>VOC ELS3</td>
<td>Communications Circuits</td>
</tr>
<tr>
<td>VOC ELS4</td>
<td>Industrial Electronics</td>
</tr>
<tr>
<td>VOC TCH60</td>
<td>Customer Relations for the Technician</td>
</tr>
</tbody>
</table>
Electronics: Industrial Systems

#24319
In addition to courses in electronics fundamentals, the Industrial Systems curriculum encompasses advanced coursework in industrial electronics, including electronic devices for industrial and motor controls. The curriculum culminates in the study of programmable logic controls (PLCs) using the Allen-Bradley series of PLCs running Windows ladder logic software.

Certificate Requirements:
Course ID  Course Title
VOC EL11  Technical Applications in Microcomputers
VOC EL12  Computer Simulation and Troubleshooting
VOC EL50A  Electronic Circuits - Direct Current (DC)
VOC EL50B  Electronic Circuits (AC)
VOC EL51  Semiconductor Devices and Circuits
VOC EL54A  Industrial Electronics
VOC EL54B  Industrial Electronic Systems
VOC EL56  Digital Electronics
VOC EL61  Electronics Assembly and Fabrication
VOC TCH60  Customer Relations for the Technician

Certified Nursing and Acute Care Nursing Assistant

#24400
This certificate program will prepare participants to work in both long-term and acute care facilities thus providing entry level, diverse, work opportunities in the ever growing health care field. For those planning on entering LVN or RN programs, course content may increase chances for successful admission and completion of nursing program curriculum.

These courses meet the requirements for California state certification as a CNA. The program incorporates processing of the state application and administration of the NATAP test with same day official test results for the written and manual skills examination. Verification of successful passing of the NATAP test permits immediate eligibility for employment.

All coursework can be completed within 11 weeks. Offered in Fall or Spring semesters.
Participants must:
• provide their own transportation and be at least 16 years of age or have a work permit
• be able to meet expenses and responsibilities incurred as part of this program.
• demonstrate proficient English/ESL verbal and written communication skills to take written exams, communicate with clients and maintain a safe clinical environment.

Certificate Requirements:
Course ID  Course Title
VOC HTH01  Certified Nursing Assistant
VOC HTH04  Acute Care Nursing Assistant
VOC HTH05  Health Careers Resource Center Certified Nurse Assistant (CNA) Course Completion Only VOC HTH01
VOC HTH01 is offered for “course completion only” during the Winter and Summer Intersessions. This course provides for employment in long term care only.
For further information, please contact the Health Careers Resource Center, (909) 274-4788.

Interior Design – Level 1

#31012
The primary purpose of this certificate is to prepare students with a broad overview and solid foundation in the area of interior design and related fields. This certificate may lead to new opportunities and provide students with the groundwork upon which to build a career.

Certificate Requirements:
Course ID  Course Title
VOC ID10  Introduction to Interior Design
VOC ID12  Materials and Products for Interior Design
VOC ID14  History of Furniture and Decorative Arts

MANUFACTURING TECHNOLOGY

MasterCAM

#24212
This certificate provides a strong background in MasterCAM 2-D and 3-D, and SolidWorks software packages along with the necessary machine shop theory and practice to input sound functional data into the CAM system.

Certificate Requirements:
Course ID  Course Title
VOC MF11  Manufacturing Processes I
VOC MF38  MasterCAM I
VOC MF38B  Advanced MasterCAM
VOC MF85  Manual CNC Operations

Administrative Assistant – Level I

#24061
Prepares students for entry-level clerical positions where keyboarding is the primary function.

Certificate Requirements:
Course ID  Course Title
VOC BO05  Business English
VOC CS11  Computer Keyboarding
VOC CSB15  Microcomputer Applications
VOC CS41  Office Management Skills

Administrative Assistant – Level II

#24066
This Level 2 certificate prepares students for clerical positions where in addition to general office skills, written communication and advanced word processing skills are needed.

Certificate Requirements:
Course ID  Course Title
VOC BO05  Business English
VOC CS11  Computer Keyboarding
VOC CSB15  Microcomputer Applications
VOC CS41  Office Management Skills

OFFICE TECHNOLOGY

Administrative Assistant – Level I

#24061
Prepares students for entry-level clerical positions where keyboarding is the primary function.

Certificate Requirements:
Course ID  Course Title
VOC BO05  Business English
VOC CS11  Computer Keyboarding
VOC CSB15  Microcomputer Applications
VOC CS41  Office Management Skills

Office Computer Applications

#24410
This certificate in Office Computer Applications is customized to meet the needs of the entry-level adult student or professional, who is seeking to acquire an array of office computer skills required in a computerized office environment.

Certificate Requirements:
Course ID  Course Title
VOC BO25  Business Communications
VOC CS11  Computer Keyboarding
VOC CSB15  Microcomputer Applications
VOC CS41  Office Management Skills

Photography - Level I

#24245
This certificate program is designed to prepare students for employment in the field of photography and offers the core skills necessary as an entry-level Photography Assistant.

Certificate Requirements:
Course ID  Course Title
VOC CPBC1  Basic Computing – Level 1
VOC CPBC2  Basic Computing – Level 2
VOC CPBC3  Basic Computing – Level 3
VOC CPBC1  Business English
VOC CPBC2  Computer Keyboarding
VOC CPBC3  Microcomputer Applications
VOC CPBC1  Internet Research – An Introduction
VOC CPBC2  Creative Computing

Recommended Electives: The Photographics faculty recommends that you complement your studies with recommended electives. The curriculum 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 PHO01  Laboratory Studies: Black and White Photography
VOC PHO18  Portraiture and Wedding Photography
VOC PHO20  Color Photography
VOC PHO10  Basic Digital and Film Photography
VOC PHO11  Intermediate Photography
VOC PHO16  Fashion Photography
VOC PHO18  Portraiture and Wedding Photography
VOC PHO10  Basic Digital and Film Photography
VOC PHO11  Intermediate Photography
VOC PHO16  Fashion Photography
VOC PHO01  Laboratory Studies: Black and White Photography
VOC PHO15  History of Photography
VOC PHO18  Portraiture and Wedding Photography
VOC PHO10  Basic Digital and Film Photography
VOC PHO11  Intermediate Photography
VOC PHO16  Fashion Photography
VOC PHO01  Laboratory Studies: Black and White Photography
VOC PHO15  History of Photography
# Licensed Welder

**#24223**

This certificate is designed to prepare students for entry-level employment in the broad field of welding, including manufacturing, construction, fabrication and repair. Through theoretical and hands-on skills coursework, students prepare for industry licensing with an understanding of current guidelines and standards. Particular emphasis is placed on those competencies required for certification in structural steel welding. Course sequences can be modified to reflect industry experience or other individual needs.

**Certificate Requirements:**

<table>
<thead>
<tr>
<th>Course ID</th>
<th>Course Title</th>
</tr>
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<tbody>
<tr>
<td>VOC WL40</td>
<td>Introduction to Welding</td>
</tr>
<tr>
<td>VOC WL50</td>
<td>Oxyacetylene Welding</td>
</tr>
<tr>
<td>VOC WL51</td>
<td>Basic Electric Arc Welding</td>
</tr>
<tr>
<td>VOC WL53A</td>
<td>Welding Metallurgy</td>
</tr>
<tr>
<td>VOC WL60</td>
<td>Print Reading and Computations for Welders</td>
</tr>
<tr>
<td>VOC WL70A</td>
<td>Beginning Arc Welding</td>
</tr>
<tr>
<td>VOC WL70B</td>
<td>Intermediate Arc Welding</td>
</tr>
<tr>
<td>VOC WL80</td>
<td>Fabrication and Construction Welding</td>
</tr>
<tr>
<td>VOC WL81</td>
<td>Pipe and Tube Welding</td>
</tr>
</tbody>
</table>

# Welding: Automotive Welding, Cutting & Modification

**#24406**

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

**Certificate Requirements:**

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<tr>
<td>VOC WL53A</td>
<td>Welding Metallurgy</td>
</tr>
<tr>
<td>VOC WL60</td>
<td>Print Reading and Computations for Welders</td>
</tr>
<tr>
<td>VOC WL70A</td>
<td>Beginning Arc Welding</td>
</tr>
<tr>
<td>VOC WL70B</td>
<td>Intermediate Arc Welding</td>
</tr>
<tr>
<td>VOC WL70C</td>
<td>Certification for Welding</td>
</tr>
<tr>
<td>VOC WL80</td>
<td>Fabrication and Construction Welding</td>
</tr>
<tr>
<td>VOC WL81</td>
<td>Pipe and Tube Welding</td>
</tr>
<tr>
<td>VOC WL91</td>
<td>Automotive Welding, Cutting and Modification</td>
</tr>
</tbody>
</table>

# Welding: Gas Tungsten Arc, Welding

**#24380**

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

**Certificate Requirements:**

<table>
<thead>
<tr>
<th>Course ID</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>VOC WL40</td>
<td>Introduction to Welding</td>
</tr>
<tr>
<td>VOC WL50</td>
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<td>VOC WL51</td>
<td>Basic Electric Arc Welding</td>
</tr>
<tr>
<td>VOC WL53A</td>
<td>Welding Metallurgy</td>
</tr>
<tr>
<td>VOC WL60</td>
<td>Print Reading and Computations for Welders</td>
</tr>
<tr>
<td>VOC WL70A</td>
<td>Beginning Arc Welding</td>
</tr>
<tr>
<td>VOC WL70B</td>
<td>Intermediate Arc Welding</td>
</tr>
<tr>
<td>VOC WL70C</td>
<td>Certification for Welding</td>
</tr>
<tr>
<td>VOC WL80</td>
<td>Fabrication and Construction Welding</td>
</tr>
<tr>
<td>VOC WL81</td>
<td>Pipe and Tube Welding</td>
</tr>
<tr>
<td>VOC WL91</td>
<td>Automotive Welding, Cutting and Modification</td>
</tr>
</tbody>
</table>

# Welding: Semiautomatic Arc, Welding

**#24379**

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

**Certificate Requirements:**

<table>
<thead>
<tr>
<th>Course ID</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>VOC WL40</td>
<td>Introduction to Welding</td>
</tr>
<tr>
<td>VOC WL50</td>
<td>Oxyacetylene Welding</td>
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<tr>
<td>VOC WL51</td>
<td>Basic Electric Arc Welding</td>
</tr>
<tr>
<td>VOC WL53A</td>
<td>Welding Metallurgy</td>
</tr>
<tr>
<td>VOC WL60</td>
<td>Print Reading and Computations for Welders</td>
</tr>
<tr>
<td>VOC WL70A</td>
<td>Beginning Arc Welding</td>
</tr>
<tr>
<td>VOC WL70B</td>
<td>Intermediate Arc Welding</td>
</tr>
<tr>
<td>VOC WL70C</td>
<td>Certification for Welding</td>
</tr>
<tr>
<td>VOC WL80</td>
<td>Fabrication and Construction Welding</td>
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<tr>
<td>VOC WL81</td>
<td>Pipe and Tube Welding</td>
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<tr>
<td>VOC WL90B</td>
<td>Semiautomatic ARC Welding Process</td>
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<td>NONCREDIT COURSE LISTINGS</td>
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<tr>
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<td>Economics ........................................................................... 235</td>
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<td>English 1 ........................................................................... 235</td>
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BS ABE01 — Career Information and Guidance
Orientation to the college including enrollment procedures, test score interpretation, course selection, and career information. Course includes academic placement tests and/or vocational assessments available.

BS ABE02 — Adult Basic Education
Improves basic skills of adult learners. Content includes reading comprehension, language, and mathematics. Prepares students for the General Education Development (GED) Exam and the Armed Services Vocational Aptitude Battery (ASVAB) exam.

BS ABE03 — Adult Basic Education—Leadership Development
Leadership styles and individual leadership skills including effective communication, facilitation, problem-solving, decision-making and conflict resolution. Introduction to organizational structures, governance, models and group process.

BS ABE04 — Guidance and Orientation to Special Programs
Provides an overview of special programs at Mt. San Antonio College. Information regarding the College’s mission, program guidelines, regulations, and eligibility requirements are presented.

BS ABE05 — Career Development
Career assessment, research and preparation; investigates career fields to determine interest; provides information on required skills and areas for professional growth. Includes assigned time for field investigation, individual assessment and skill building.

BS ABE06 — Basic Skills Foundation
Preparation for college credit courses. Improves reading, mathematics, writing, and critical thinking by assessing current skills. Includes individual education plan to achieve career and educational goals.

BS ABE07 — Re-Entry Work Skills Needed for Today’s Workforce
Development of skills necessary for employment. Topics include workplace ethics, job search techniques, resume writing and preparing for an interview.

BS ASVAB — ASVAB Preparation (Armed Services Vocational Aptitude Battery)
General knowledge in five of the ten areas of the Armed Services Vocational Aptitude Battery (ASVAB) exam; general science, word knowledge, paragraph comprehension, arithmetic reasoning, and math knowledge, test preparation skills.

BS CNSLS — Career/Life Planning

BS GEDMA — GED Preparation: Mathematics
Improve mathematical knowledge and skills in preparation for the Math section of the General Education Development (GED) exam. Test areas include number operations, geometry, statistics and algebra.

BS GEDRD — GED Preparation: Language Arts, Reading
Improve comprehension and reading knowledge and skills in preparation for the Language Arts: Reading section of the General Education Development (GED) exam. Poetry, fiction, nonfiction, drama, art reviews and workplace documents.

BS GEDSC — GED Preparation: Science
Improve scientific knowledge and skills in preparation for the Science section of the General Education Development (GED) exam. Test areas include physics, chemistry, life science, earth science and astronomy.

BS GEDSS — GED Preparation: Social Studies
Improve historical knowledge in preparation for the social studies section of the General Education Development (GED) exam. Test areas include United States history, world history, geography, government and economics.

BS GEDWR — GED Preparation: Language Arts, Writing
Improve organizational and grammatical knowledge and skills in preparation for the Language Arts: Writing section of the General Education Development (GED) exam. Test areas include paragraph organization, sentence structure, usage, grammar mechanics and essay development.

BSHS ALG1 — High School Algebra 1
Use of symbolic reasoning and calculations with symbols as applied to solving and graphing equations, functions and inequalities. Supports progress toward a high school diploma or equivalent. From 1-10 high school credits can be earned in 15-hour modules.

BSHS ALG2 — High School Algebra 2
Key components of second year algebra. Expands on basic algebra and geometry concepts, including solutions of quadratic equation and functions, equations and inequalities, fractional exponents and exponential functions, polynomials, real numbers, rational and irrational expressions, logarithmic functions, computations, permutations and probabilities, statistics, series and sequences, and the complex number system. Supports progress toward a high school diploma or equivalent. From 1-10 high school credits can be earned in 15-hour modules.

BSHS ART2 — High School - Art 2
Artistic perception, creative expression, and aesthetic valuing through experiences with art for high school students. Historical and cultural context of the visual arts. Original productions in design and drawing using a variety of media. Supports progress toward a high school diploma or equivalent. From 1-10 high school credits can be earned in 15-hour modules.
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<th>Course Code</th>
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<tr>
<td>BSHS CPTC</td>
<td>High School Computer Technology</td>
<td>Fundamental computer concepts, keyboarding skills, Internet applications, word processing, multi-media presentations, spreadsheets and electronic publishing. Application of technology in the educational and workplace settings. Includes file-management and appropriate technology use in a network environment as well as copyright law and safety. Supports progress toward a high school diploma or equivalent. From 1-10 high school credits can be earned in 15-hour modules.</td>
</tr>
<tr>
<td>BSHS EASC</td>
<td>High School Earth Science</td>
<td>General economic principles and practices including: scarcity and choice, opportunity and trade-offs, economic systems, institutions and incentives, markets and prices, supply and demand, competition, income distribution, monetary policy, international economics and government roles. Supports progress toward a high school diploma or equivalent. From 1-10 high school credits can be earned in 15-hour modules.</td>
</tr>
<tr>
<td>BSHS ENG1</td>
<td>High School - English 1</td>
<td>Foundations of literature using a variety of genres and theme experiences; analysis of works based on themes. Writing, editing and critical thinking skills; vocabulary, concept development, grammar and writing mechanics. Supports progress towards a high school diploma or equivalent. From 1-10 high school credits can be earned in 15-hour modules.</td>
</tr>
<tr>
<td>BSHS ENG2</td>
<td>High School English 2</td>
<td>Expands on the foundations of literature from English 1 using a variety of genres and themes. Improves skills in reading comprehension, literary analysis, mechanics of writing and oral presentations. Supports progress toward to a high school diploma or equivalent. From 1-10 high school credits can be earned in 15-hour modules.</td>
</tr>
<tr>
<td>BSHS ENG3</td>
<td>High School English 3</td>
<td>Foundations of literature through American literature using the historical approach. Includes social, political, and intellectual trends connected with the following time periods: Pre-Colonial Era, the American Revolution, the New England Renaissance, Slavery and the Civil War, the Frontier Era, the Harlem Renaissance, and the Modern Era. Development of writing and critical thinking skills. Supports progress toward a high school diploma or equivalent. From 1-10 high school credits can be earned in 15-hour modules.</td>
</tr>
<tr>
<td>BSHS ENG4</td>
<td>High School English 4</td>
<td>Foundations of literature through British literature using the historical approach. Includes social, political and intellectual trends connected with the following time periods: Anglo-Saxon, Medieval, English Renaissance, Renaissance drama, the early 17th century, the Restoration and the 18th century, the Romantic Era, the Victorian Age, and contemporary British poetry and prose. Development of writing, critical thinking, and the use of literary tools. Supports progress toward a high school diploma or equivalent. From 1-10 high school credits can be earned in 15-hour modules.</td>
</tr>
<tr>
<td>BSHS PREA</td>
<td>High School Pre-Algebra</td>
<td>Preparatory course for first year algebra. Review of algebra. Supports progress toward a high school diploma or equivalent. From 1-10 high school credits can be earned in 15-hour modules.</td>
</tr>
<tr>
<td>BSHS KEY</td>
<td>High School - Typing/Keyboarding</td>
<td>Develops the skill of keyboarding for high school students. Emphasis will be placed on learning alphabetic and numeric keys by touch using appropriate techniques. Students will build on basic skills to improve speed and accuracy in order to create, format and edit a variety of documents. Supports progress toward to a high school diploma or equivalent. From 1-10 high school credits can be earned in 15-hour modules.</td>
</tr>
<tr>
<td>BSHS MUSC</td>
<td>High School - Music Appreciation</td>
<td>Historical, cultural and genre-based aesthetic valuing of music for high school students. Vocabulary, interaction of words and music, influence of religion, theater, government and culture on musical style. Supports progress toward to a high school diploma or equivalent. From 1-10 high school credits can be earned in 15-hour modules.</td>
</tr>
<tr>
<td>BSHS PHSC</td>
<td>High School Physical Science</td>
<td>Introductory overview of chemistry and physical science. Basics of the periodic table, matter and atoms. Newtonian physics including motion, momentum and forces. Machines, energy, waves, light, electricity and magnetism. Supports progress toward to a high school diploma or equivalent. From 1-10 high school credits can be earned in 15-hour modules.</td>
</tr>
<tr>
<td>BSHS PLSG</td>
<td>High School Planning and Guidance</td>
<td>Complements existing school guidance and planning activities and motivates high school students to utilize those resources to their best advantage. Covers the challenges faced by students at the end of high school careers. Supports progress toward to a high school diploma or equivalent. From 1-10 high school credits can be earned in 15-hour modules.</td>
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<tr>
<td>BSHS PREA</td>
<td>High School Pre-Algebra</td>
<td>Preparatory course for first year algebra. Review of basic mathematic skills and the basic principles of algebra. Supports progress toward to a high school diploma or equivalent. From 1-10 high school credits can be earned in 15-hour modules.</td>
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**Catalog Cover**

**Bookmarks**

**Contents**
BSHS SPN1 — High School Spanish, Conversation and Writing
Fundamentals of Spanish language. Communication about self and immediate environment using simple sentences and phrases. Includes writing and speaking. Cultural connections to geography and customs of Spanish-speaking countries. Supports progress toward a high school diploma or equivalent. From 1-10 high school credits can be earned in 15-hour modules.

BSHS SPN2 — High School Spanish 2
Intermediate Spanish. Culture, listening, speaking, reading and writing. Emphasis on skills needed to communicate in a variety of modes with increased complexity and proficiency. Supports progress toward a high school diploma or equivalent. From 1-10 high school credits can be earned in 15-hour modules.

BSHS WRIT1 — Literature and Writing Fundamentals 1
Reading comprehension and analysis skills across genres including fiction, nonfiction, various genres of literature (novels, short stories, plays, poetry) and informational texts; writing skills including paragraph writing, thesis development, and editing. Supports progress towards a high school diploma or equivalent. From 1-10 high school credits can be earned in 15-hour modules per credit.

BSHS WRIT2 — Literature and Writing Fundamentals 2
Literary analysis skills across genres including fiction, nonfiction, various genres of literature (novels, short stories, plays, poetry), and informational texts; essay writing skills for academic essays, research papers, and workplace documents. Supports progress towards a high school diploma or equivalent. From 1-10 high school credits can be earned in 15-hour modules per credit.

BSHS USH — High School United States History
History, politics, economics, religion and culture in United States history from its beginning to contemporary times. Significant events and people that comprise American history. Supports progress toward a high school diploma or equivalent. From 1-10 high school credits can be earned in 15-hour modules.

BSHS WHS — High School World History
World history from prehistory to the modern era. Major turning points that shaped the modern world, focusing on the late 18th century through the present, awaiting admission, to enhance pronunciation, listening, reading acceleration and variable reading speeds. Provides instruction and practice in techniques of reading and comprehension. Supports progress toward a high school diploma or equivalent. From 1-10 high school credits can be earned in 15-hour modules.

BSHS WRIT1 — Literature and Writing Fundamentals 1
Reading comprehension and analysis skills across genres including fiction, nonfiction, various genres of literature (novels, short stories, plays, poetry) and informational texts; writing skills including paragraph writing, thesis development, and editing. Supports progress towards a high school diploma or equivalent. From 1-10 high school credits can be earned in 15-hour modules.

BSHS WRIT2 — Literature and Writing Fundamentals 2
Literary analysis skills across genres including fiction, nonfiction, various genres of literature (novels, short stories, plays, poetry), and informational texts; essay writing skills for academic essays, research papers, and workplace documents. Supports progress towards a high school diploma or equivalent. From 1-10 high school credits can be earned in 15-hour modules per credit.

BSHS WREX — High School Expository Writing
Developing essay writing including introductory paragraphs, body paragraphs and concluding paragraphs in expository, descriptive, narrative and argumentative essays. Supports progress toward a high school diploma or equivalent. From 1-10 high school credits can be earned in 15-hour modules.

BSHS PSY — High School Psychology
Methods, facts and theories of the behavior and processes of human beings and animals. Theories and characteristics of the history of psychology, research and statistics, child and adult development, sensations, perceptions, cognition, stress, learning, memory, motivation, behavior, personality, abnormal behavior, individuality versus group identity and behavior and therapy. Supports progress toward a high school diploma or equivalent. From 1-10 high school credits can be earned in 15-hour modules.

BSHS SOC — High School Sociology
Concepts and theories of social interaction. Theories, characteristics and implications of culture, socialization, society, groups, deviations and control, social stratification, race, gender, age, family, education, politics, religion, sports and change. Supports progress toward a high school diploma or equivalent. From 1-10 high school credits can be earned in 15-hour modules.

BSHS WRIT1 — Literature and Writing Fundamentals 1
Reading comprehension and analysis skills across genres including fiction, nonfiction, various genres of literature (novels, short stories, plays, poetry) and informational texts; writing skills including paragraph writing, thesis development, and editing. Supports progress towards a high school diploma or equivalent. From 1-10 high school credits can be earned in 15-hour modules.

BSHS WRIT2 — Literature and Writing Fundamentals 2
Literary analysis skills across genres including fiction, nonfiction, various genres of literature (novels, short stories, plays, poetry), and informational texts; essay writing skills for academic essays, research papers, and workplace documents. Supports progress towards a high school diploma or equivalent. From 1-10 high school credits can be earned in 15-hour modules per credit.

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BSHS WRIT1 — Literature and Writing Fundamentals 1
Reading comprehension and analysis skills across genres including fiction, nonfiction, various genres of literature (novels, short stories, plays, poetry) and informational texts; writing skills including paragraph writing, thesis development, and editing. Supports progress towards a high school diploma or equivalent. From 1-10 high school credits can be earned in 15-hour modules.

BSHS WRIT2 — Literature and Writing Fundamentals 2
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BSHS WREX — High School Expository Writing
Developing essay writing including introductory paragraphs, body paragraphs and concluding paragraphs in expository, descriptive, narrative and argumentative essays. Supports progress toward a high school diploma or equivalent. From 1-10 high school credits can be earned in 15-hour modules.

BSHSSK — High School - Study Skills
Instruction in content and structure of sentences, prewriting, writing, editing and revising. Provides instruction in writing through the integration of grammar and critical thinking.

BSLRN6 — 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.

BSLRN50 — Learning Support Laboratory
Learning and workplace skills are enhanced by computer use and instruction for students enrolled in or seeking enrollment in a college instructional program.

BSLRN72 — 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.

BSLRN76 — Improving Reading Comprehension
Prepares students for reading informational materials. Topics include spelling, reading comprehension, dictionary usage and how to read a textbook.

BSLRN81 — 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.

BSLRN06 — 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.

BSLRN50 — Learning Support Laboratory
Learning and workplace skills are enhanced by computer use and instruction for students enrolled in or seeking enrollment in a college instructional program.

BSLRN72 — Reading Acceleration
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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.
### School of Continuing Education

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<td>Foundations for Academic Success</td>
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<td>BS WRT2</td>
<td>Basic Writing Skills Development - Basic Skills Development in Reading and Writing</td>
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<td>BS TR01</td>
<td>All Subject Tutoring</td>
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<td>BS TR02</td>
<td>Tutoring Techniques</td>
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<td>CITZ NAT</td>
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<td>DSPS EL01</td>
<td>Lifelong Learning for the Special Needs Population</td>
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<td>DSPS ESL25</td>
<td>Language Development for Deaf Students in ASL and ESL</td>
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<td>DSPS ESL26</td>
<td>Language Enhancement for Deaf Students in ASL and ESL</td>
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<td>ENGLISH AS A SECOND LANGUAGE</td>
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<td>ESL for the Deaf and Hard of Hearing - Level 1</td>
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### DISABED STUDENTS

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<td>DSPS LRND2</td>
<td>High Tech Center Tutorial/Assistance Class</td>
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<tr>
<td>DSPS LRND3</td>
<td>Adaptive Academic Preparation</td>
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### CITIZENSHIP

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### ENGLISH AS A SECOND LANGUAGE

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<th>Course Code</th>
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<tr>
<td>ESL LVL1</td>
<td>Beginning to low English students build vocabulary, grammar and communication skills.</td>
</tr>
<tr>
<td>ESL LVL2</td>
<td>High beginning English students build upon their base of vocabulary and improve grammar understanding through practice of listening, speaking, reading and writing skills. Students work independently and in groups to develop projects and make presentations that are meaningful to them.</td>
</tr>
<tr>
<td>ESL LVL3</td>
<td>Low intermediate level students improve English communication and grammar through practice of listening, speaking, reading and writing skills. Activities include team projects, presentations and exams in preparation for academic/vocational success and encourage civic participation.</td>
</tr>
<tr>
<td>ESL LVL4</td>
<td>High intermediate level students improve English communication and grammar through practice of listening, speaking, reading and writing skills. Activities include team projects, presentations and exams, in preparation for academic/vocational success and encourage civic participation.</td>
</tr>
<tr>
<td>ESL LVL5</td>
<td>Low advanced level students improve English communication and grammar understanding through practice of listening, speaking, reading and writing skills. Activities include team projects, presentations and exams in preparation for academic/vocational success and encourage civic participation.</td>
</tr>
<tr>
<td>ESL LVL6</td>
<td>High advanced level students improve English communication and grammar 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.</td>
</tr>
<tr>
<td>ESL LVL1</td>
<td>Literacy-level English students build a base of vocabulary and grammar through practice of listening, speaking reading and writing skills.</td>
</tr>
<tr>
<td>ESL LVL2</td>
<td>Beginning level students develop English listening comprehension and speaking fluency. Activities include talking in small groups or with partners, listening and responding to simple conversations, short presentations and pronunciation practice.</td>
</tr>
<tr>
<td>ESL LVL3</td>
<td>Intermediate level students improve English oral proficiency in areas of pronunciation, listening comprehension and speaking skills. Through group discussions and short presentations, students practice speaking with clarity and fluency, present their ideas and opinions, and make cultural comparisons.</td>
</tr>
<tr>
<td>ESL LVL4</td>
<td>Advanced level students expand listening and speaking strategies to facilitate academic preparation, workplace advancement and civic participation. Focus is on fluency, grammatical accuracy and appropriate social register. Activities include use of authentic material in group tasks and class presentations.</td>
</tr>
</tbody>
</table>
ESL SPKP1 — ESL Speaking A for Beginners (Pre-1)
Literacy level English listening comprehension and speaking skills. Activities include repetition exercises, listening and responding to simple conversations, retelling stories, and pronunciation practice.

ESL TOEFL — TOEFL Preparation
Advanced ESL students improve grammar, speaking and writing in preparation for standardized tests such as TOEFL.

ESL VHLC1 — English As A Second Language
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 WRTH — ESL Writing – B
Intermediate level students improve English 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 WRTH — 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.

ESL WRTP1 — ESL Writing A for Beginners (Pre-1)
Reading and writing skills that set the foundation for English literacy. Material is based on personal life, familiar topics and American customs. Focus is on vocabulary, introduction to reading passages, and accuracy in sentence-level writing.

OLDER ADULTS

OAD BH1H1 — Brain Health 1
Critical thinking and cognitive skills through understanding key structures and functions of the brain. Particular focus on auditory processing.

OAD BH1H2 — Brain Health 2
Age-related cognitive decline and preventative measures to strengthen and improve brain function. Particular focus on visual processing.

OAD ELL01 — 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
Prepares the student to create individual designs for mass production and/or one-of-a-kind crafts. Marketing, pricing, cost analysis and proper care of equipment included. Students will receive a supply list at the first class meeting.

OAD ELL06 — Craft Painting for Business Opportunities
Paint on various surfaces including fabric, glass, wood, plastic and plastic. Includes product design, marketing and proper use of equipment and emerging technology.

OAD ELL07 — Handcrafted Needlework for Retail Sales and Boutiques
Needlework technique including knitting, crocheting, embroidery, needlepoint for plastic canvas and emerging technology to construct finished products for sale.

OAD ELL08 — Jewelry Production and Design for Retail Sales
Design and construct wire-worked jewelry using beads & stones with various methods of wire wrapping, coiling, hammering and emerging technology.
VOC ESD09 — Sewing and Design
Basic sewing techniques for the older adult population, including basic tailoring, pattern reading, cutting and style design to construct professional-looking garments.

VOC ESD10 — Beginning Decorative Art Production for Retail Sales
Introduction to decorative painting and associated mediums for the older adult population, including painting on a variety of surfaces using tole art brush strokes used in folk art, stenciling and other design applications and emerging technology.

VOC ESD11 — Intermediate Decorative Art Production for Retail Sales
Intermediate tole art brush strokes on a variety of surfaces using acrylic paints, associated mediums and emerging technology to create finished products for the older adult population.

VOC ESD15 — Jewelry/Lapidary Production Design
Jewelry making, stone cutting, polishing and lapidary work and emerging technology for the older adult population.

VOC HBBUS — Starting a Home-Based Business
Starting a home-based business to become self-employed. Includes basic marketing, finance and management skills.

VOC ADJ01 — The Administration of Justice System
History and philosophy of the justice system, subsystems, roles, relationships and theories of crime causation and correction.

VOC ADJ02 — Principles and Procedures of the Justice System
Roles and responsibilities of each segment of the justice system; additional focus on relationships between system segments and sub-system procedures from initial incident to final disposition.

VOC ADJ03 — Concepts of Criminal Law
Provides an overview of California criminal law from the perspective of the law enforcement officer.

VOC ADJ04 — Legal Aspects of Evidence
Criminal evidence, including admissibility, witness competency, privileged communication, hearsay and collection and preservation of evidence.

VOC ADJ05 — Community Relations
A comprehensive exploration of community problems designed for individuals in public service with major emphasis on community-oriented policing. Reviews public service image, diversity issues, human relations and reactions, crisis areas and confrontations with the public.

VOC ADJ06 — Concepts of Enforcement Services
Responsibilities, techniques and methods of police patrol with emphasis on the basic knowledge required in handling common police occurrences.

VOC ADJ07 — Concepts of Traffic Services
Traffic management, collision reconstruction, collision factors including law violations and human factors, collision evidence, traffic enforcement techniques and specialization in traffic management. Emphasis is placed on service to the motoring public.

VOC ADJ08 — Principles of Investigation
Investigation; 4th Amendment issues including crime scene search and recording; collection and preservation of physical evidence; modus operandi; suspect profiling scientific aids; sources of information; use of informants; interviews and interrogation; follow up and case preparation.

VOC ADJ13 — Principles of Narcotics Investigation
Investigation and arrest techniques for drug enforcement. Drug effects, use of informants, amendment issues and handling of evidence.

VOC ADJ14 — Gangs and Corrections
Exploration of contemporary street and prison gang issues, including historical and current perspectives, prison gang dynamics, identification of characteristics, cultural differences of gang philosophy. Includes law enforcement/corrections role in intervention/suppression.

VOC ADJ15 — Narcotics Investigation
Techniques for proper documentation of crime reports and related law enforcement records. Use of simulations and role-playing.

VOC ADJ16 — Vice Control
Code and case law dealing with vice; detection and suppression; apprehension and prosecution of violators; special consideration of laws dealing with gambling, prostitution, and sex crimes.

VOC AGG01 — Food Production, Land Use and Politics - A Global Perspective
Surveys the world’s food producing systems in terms of economic, political and cultural forces. Emphasizes ethical, sustainable food producing agriculture.

VOC AGN01 — Animal Science
Fundamental problems and essential concepts of animal production. Includes the study of the types of domestic animals and their utilization by humans.

VOC AGN02 — Animal Nutrition
Composition of feeds and their utilization by domestic animals, including digestive physiology, animal assessment, feed appraisal and compiling of rations.

VOC AGN03 — Animal Handling and Restraint
This course will cover the methods of properly handling large and small animals and will include chemical and physical techniques of restraint.

VOC AGN04 — Animal Breeding
The science of animal breeding, including fundamentals of inheritance, reproduction and breeding systems for domestic animals. Artificial insemination, embryo manipulation and current topics in reproductive biotechnology will also be included.

VOC AGN05 — Animal Care and 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 AGN06 — Exotic Animal Management
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 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 AGL30 — Beef Production
Principles and practices in the selection and management of feeder, market and breeding beef cattle. Economics of production, utilization of farm-grown feeds, and feedlot operations will be stressed.

VOC AGL34 — Livestock Judging and Selection
Study of form and appearance of farm animals as related to their function. Includes judging of breeding.

VOC AGL34 — Livestock Judging and Selection
Study of form and appearance of farm animals as related to their function. Includes judging of breeding and terminal livestock as well as carcass evaluation.

VOC AGL96 — Animal Sanitation and Disease Control
Prevention and control of infectious diseases affecting domestic animals, including basic disease concepts, transmissions of infectious diseases, principles of sanitation and fundamentals of immunology.

VOC AGL97 — Artificial Insemination of Livestock
Theory and application of artificial insemination of domestic animals, including semen evaluation and processing, heat synchronization and pregnancy diagnosis.

VOC AGP72 — Feline Management
Care and management of cats. Includes breed identification and characteristics, grooming, showing, nutrition, practical care, behavior, breeding and housing.

VOC AGP73 — Tropical and Coldwater Fish Management
Care and keeping of marine and freshwater aquarium fishes, plants and invertebrates. Includes guidance on setting up aquariums, choosing compatible species, feeding, health care, breeding and raising fish.

VOC AGP74 — Reptile Management
Care and maintenance of reptiles and amphibians, including snakes, lizards, turtles, tortoises, newts, salamanders and frogs. Identification and characteristics of reptiles commonly kept as pets. Housing, feeding, health maintenance, breeding and raising of reptiles.

VOC AGP76 — Aviculture - Cage and Aviary Birds
Presents cage and aviary birds marketed in the wholesale and retail pet trade, including identification, nutrition, breeding, disease prevention and control, aviary construction and providing the proper environment. Includes information on psittacines, soft bills, finches, game birds, poultry and ornamental waterfowl.

VOC AGP79 — Tropical and Coldwater Fish Management
Care and keeping of marine and freshwater aquarium fishes, plants and invertebrates. Includes guidance on setting up aquariums, choosing compatible species, feeding, health care, breeding and raising fish.

VOC AGP80 — Reptile Management
Care and maintenance of reptiles and amphibians, including snakes, lizards, turtles, tortoises, newts, salamanders and frogs. Identification and characteristics of reptiles commonly kept as pets. Housing, feeding, health maintenance, breeding and raising of reptiles.

VOC AGP82 — Aviculture - Cage and Aviary Birds
Presents cage and aviary birds marketed in the wholesale and retail pet trade, including identification, nutrition, breeding, disease prevention and control, aviary construction and providing the proper environment. Includes information on psittacines, soft bills, finches, game birds, poultry and ornamental waterfowl.

VOC AGP83 — Tropical and Coldwater Fish Management
Care and keeping of marine and freshwater aquarium fishes, plants and invertebrates. Includes guidance on setting up aquariums, choosing compatible species, feeding, health care, breeding and raising fish.

VOC AGP84 — Reptile Management
Care and maintenance of reptiles and amphibians, including snakes, lizards, turtles, tortoises, newts, salamanders and frogs. Identification and characteristics of reptiles commonly kept as pets. Housing, feeding, health maintenance, breeding and raising of reptiles.

VOC AGP86 — Aviculture - Cage and Aviary Birds
Presents cage and aviary birds marketed in the wholesale and retail pet trade, including identification, nutrition, breeding, disease prevention and control, aviary construction and providing the proper environment. Includes information on psittacines, soft bills, finches, game birds, poultry and ornamental waterfowl.

VOC AGP87 — Tropical and Coldwater Fish Management
Care and keeping of marine and freshwater aquarium fishes, plants and invertebrates. Includes guidance on setting up aquariums, choosing compatible species, feeding, health care, breeding and raising fish.

VOC AGP88 — Reptile Management
Care and maintenance of reptiles and amphibians, including snakes, lizards, turtles, tortoises, newts, salamanders and frogs. Identification and characteristics of reptiles commonly kept as pets. Housing, feeding, health maintenance, breeding and raising of reptiles.

VOC AGP90 — Plant Propagation/Greenhouse Management
Plant propagation and production practices with emphasis on florists’ plants, woody ornamentals and fruits. Commercial techniques include seed propagation, cuttings, grafting and budding, layering, fern sporing and division. Stresses greenhouses and other environmental structures for plant propagation and production.

VOC AGP91 — Horticultural Science
Horticulture skills and techniques for use in gardening, nursery, and landscape applications. Emphasis on propagation, cultural practices, and the study of plant relationships, structure, growth and development.

VOC AGP92 — Park Management
Management and operation of municipal park departments. Includes the development of budgets, purchasing, park policies, planning and scheduling.

VOC AGP93 — Park Facilities
Management and operation of different types of park facilities. Includes the management of sports fields, recreation centers, campground, aquatic facilities and golf courses.

VOC AGP94 — 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 AGP95 — Interior Landscaping
Design, installation and maintenance practices used in interior landscaping. Includes identification, culture and care of plants suitable for interior use. Field trip required.

VOC AGP96 — 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 AGP97 — Floral Design 1
Principles of floral design: form, style and composition. Includes designing of floral arrangements, wreaths, sprays, baskets, bouquets, wedding flowers and corsages.

VOC AGP98 — Floral Design 2
Contemporary design theory emphasizing creativity, self-expression and professional design situations.

VOC AGP99 — Floral Design 3
Advanced principles of floral design and florist operations management. Includes designs and operations related to holidays, parties, weddings, and sympathy.

VOC AGP100 — Ornamental Plants - Herbaceous
Identifies growth habits, use and ornamental uses 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 AGP101 — Ornamental Plants - Trees and Woody Shrubs
Identification, growth habits, use 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.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>VOC AGR50</td>
<td>Soils Science and Management</td>
<td>Principles of proper soil management to optimize plant growth, including management of air, water, nutrients and organic matter. Physical and chemical properties of soil that govern soil reactions and interactions. Field trips are included.</td>
</tr>
<tr>
<td>VOC AGR51</td>
<td>Tractor and Landscape Equipment Operations</td>
<td>Selection, operation, repair and maintenance of power equipment used in the landscape industry. Includes 2WD and 4WD tractors, skid steer loader, skid steer loader, backhoe, lawn mowers, cutters, weed eaters, blower/vacuum, rototillers, chainsaws, spraying equipment and all-terrain vehicles. Laboratory includes actual hands-on applications of this equipment.</td>
</tr>
<tr>
<td>VOC AGR52</td>
<td>Hydraulics</td>
<td>Operation, maintenance and repair of hydraulic systems used on agriculture and industrial equipment. Emphasis on pumps, valves, cylinders, flow control, reservoirs, lines, motors and hydraulic transmissions. Laboratory provides hands-on application of hydraulic systems.</td>
</tr>
<tr>
<td>VOC AGR53</td>
<td>Small Engine Repair 1</td>
<td>Principles and repair of small engines used in landscape, industrial and agricultural applications. Includes repairs of lawn mowers, chainsaws, 2-cycle engines, 4-cycle engines, spraying equipment, all-terrain vehicles, and other related gas-powered equipment.</td>
</tr>
<tr>
<td>VOC AGR55</td>
<td>Diesel Engine Repair</td>
<td>Repair and maintenance of diesel engines used in power industrial, landscape and agricultural equipment. Students gain actual hands-on experience maintaining, servicing and repairing diesel engines.</td>
</tr>
<tr>
<td>VOC AGR56</td>
<td>Engine Diagnostics</td>
<td>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.</td>
</tr>
<tr>
<td>VOC AGR57</td>
<td>Power Train Repair</td>
<td>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.</td>
</tr>
<tr>
<td>VOC AGR62</td>
<td>Landscape Irrigation - Design and Installation</td>
<td>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.</td>
</tr>
<tr>
<td>VOC AGR63</td>
<td>Landscape Irrigation Systems Management</td>
<td>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.</td>
</tr>
<tr>
<td>VOC AGR64</td>
<td>Landscape Irrigation - Drip and Low Volume</td>
<td>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.</td>
</tr>
<tr>
<td>VOC AGR71</td>
<td>Landscape Construction Fundamentals</td>
<td>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.</td>
</tr>
<tr>
<td>VOC AGR72</td>
<td>Landscape Hardscape Applications</td>
<td>Landscape construction pertaining to hardscape featured in the landscape. Estimation and installation of fences, walls, planters, patios, lighting, barbecues, gazebos, decks, ponds, spas, fountains and pools. Students will gain hands-on experience in the laboratory activities.</td>
</tr>
<tr>
<td>VOC AGR73</td>
<td>Landscaping Laws, Contracting, and Estimating</td>
<td>Landscape laws, contracting and estimating as they pertain to landscape construction. Information covered will be helpful for Landscape Contractor's (C-27 classification) licensing exam administered by the state of California. Students gain hands-on experience of contracting and running a business.</td>
</tr>
<tr>
<td>VOC AGR75</td>
<td>Urban Arboriculture</td>
<td>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.</td>
</tr>
<tr>
<td>VOC ARC11</td>
<td>Architectural Drawing</td>
<td>Basic graphic and drawing techniques, including architectural graphics, building construction fundamentals, and methods of drawings considered prerequisite to architectural design.</td>
</tr>
<tr>
<td>VOC ARC16</td>
<td>Basic CAD and Computer Application</td>
<td>Basic CAD (Computer Aided Design and Drafting) and computer application in architecture, engineering and related fields (including basic word processing, spreadsheet, CAD and presentation applications). Students who repeat this course will improve skills through further instruction and practice.</td>
</tr>
<tr>
<td>VOC BA07</td>
<td>Principles of Accounting</td>
<td>Fundamentals of accounting which provides the foundation for continued coursework in accounting. Includes accounting concepts and techniques essential to the administration of a business enterprise, analyzing and recording financial transactions, accounting valuation and allocation practices and the preparation, analysis and interpretation of financial statements. Gives the student the tools and methods needed for decision making.</td>
</tr>
<tr>
<td>VOC BA11</td>
<td>Fundamentals of Accounting</td>
<td>Accounting vocabulary and theory, equations to solve word problems, percentages, simple and compound interest, payroll, business taxes, present value, investments, inventory, depreciation, financial statement analysis and ratios.</td>
</tr>
</tbody>
</table>
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
Bookkeeping and accounting principles including the accounting cycle for service and merchandising companies, cash management, payroll and special journals. Computerized simulations and completion of an accounting project for a company.

VOC BA75 — Using Microcomputers in Financial Accounting
Application of basic accounting concepts utilizing ledger software program. Hands-on use of a microcomputer to process accounting transactions, prepare statements and reports, and complete accounting cycle tasks. Completion of a computerized accounting practice set will be required.

VOC BA76 — Using Microcomputers in Managerial Accounting
Analysis of financial data and preparation of managerial accounting reports using Excel software. Development of what-if formulas to be used as an aid in decision-making. Includes manufacturing and consolidation worksheets, financial statement analysis, and statements of cash flow.

VOC BM10 — Principles of Continuous Quality Improvement
History and evolution of thought in Continuous Quality Improvement, including the theories and methods of Deming, Juran and Crosby. The quality management process and tools for the continuous improvement of quality are presented. Relevant case studies are included.

VOC BM12 — Continuous Quality Improvement Team Building
Advisory Prerequisite: VOC BM 10 Provides comprehensive instruction in building and using Continuous Quality Improvement project teams including selection of team members and evaluation of team performance. Students completing the course will be qualified to participate as members of Continuous Quality Improvement teams, create and evaluate problem solutions applying tools for improvement planning and team decision making, and build an effective improvement plan.

VOC BM20 — Principles of Business
Overview of business and its functions, background, development, organization and opportunities. Business terms, current trends, methods, contemporary and future problems, and current business practices are covered.

VOC BM51 — Principles of International Business
International business environment with a global perspective. Includes global viewpoints across the full spectrum of business functions, including, but not limited to: accounting, finance, human resources, management, operations, production, purchasing and strategic planning.

VOC BM52 — Principles of Exporting and Importing
Practical information needed to participate in activities related to the exporting and importing of goods and services. Includes vocabulary, acronyms and information needed for an understanding of and participating in the exporting of goods and services.

VOC BM60 — Human Relations in Business
Behavior, personality, self-management, self-development, and elementary business psychology as an aid to furthering the student’s business advancement and lifelong learning. Class discussions focus on the student’s understanding of intrapersonal and interpersonal effectiveness with emphasis on communications, motivation, leadership and other related areas.

VOC BM61 — Business Organization and Management
Functions of management, techniques of decision making and problem solving, and methods used by the manager to achieve organizational goals. Various theories of management, lines of authority, functions of departments, and the importance of policies, procedures, and controls are discussed.

VOC BM62 — Human Resource Management
Direction of people including guidance, control, supervisory problems, training, job analysis, interviewing, testing, rating and other functions involving human resources. Designed to improve the overall understanding of the relationship between the individual and the business organization.

VOC BM66 — Small Business Management
Organizing, starting, and operating a small business enterprise. Emphasis on entrepreneurial applications in a small business environment.

VOC BM85 — Special Issues in Business
Provide business majors with a forum to gain knowledge, develop techniques, problem solve and implement an actual business plan. Special emphasis will be placed on the particular project of the actual business used as the class project.

VOC B005 — Business English
Skills and techniques of English, as applied to business situations. Emphasis on effective document structure.

VOC B025 — Business Communications
Written communications including letters and memos meeting a variety of situations in the business environment. Includes writing of good news, bad news, sales, claims and persuasive correspondence; letters and resumes appropriate to job seeking and application; and practicing oral skills as applied to job interviews and business reports.

VOC B026 — Oral Communications for Business
Designed to help business people communicate more effectively in spoken communication situations such as training sessions, presentations, and professional discussions.

VOC B096 — Spelling and Vocabulary for Success
Advisory Prerequisite: VOC BO05
Learn to spell and define troublesome words. Improve basic spelling and vocabulary used by business and industry. Includes proper use of dictionary; word division; adding suffices and prefixes; synonyms; computer-related vocabulary; and business vocabulary.

VOC BS35 — Professional Selling
Principles of selling and the role of a salesperson in the marketing process. Includes characteristics and skills necessary for a successful salesperson, techniques for prospecting and/or qualifying buyers, buyer behavior and critical steps in the selling process. Students develop and offer a sales presentation for a selected product, service or concept.

VOC BS36 — Principles of Marketing
Organization and function of the system of distributing goods and services from the point of production to the consumer. Preparation of a marketing plan using product, distribution, promotional and pricing strategies.
SCHOOL OF
CONTINUING EDUCATION

School of Continuing Education

Provides marketing majors with a forum to gain knowledge, develop techniques, problem-solve and implement an actual business marketing plan. Special emphasis will be placed on the particular project of the actual business used as the class project.

VOC BS85 — Special Issues in Marketing

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 BSS0 — Retail Store Management and Merchandising

Designed to increase word processing skills through business examples using up-to-date browser; word processing, spreadsheet, database management and presentation software; and integration of software applications.

VOC BCPP1 — PowerPoint Basics 1

Basic functions in Excel including formulas, sorting, filtering data and formatting tables.

VOC BCPP2 — PowerPoint Basics 2

Basic Excel including storing, manipulating and analyzing data in spreadsheets and displaying data graphically.

VOC BCPP3 — Basic Excel 3

Basic Excel including storing, manipulating and analyzing data in spreadsheets and displaying data graphically.

VOC CPBE1 — Basic Excel 1

Introduction to Excel, including terminology and working with data in a spreadsheet application.

VOC CPBE2 — Basic Excel 2

Windows operating system and applications; simple business examples using up-to-date browser; word processing, spreadsheet, database management and presentation software; and integration of software applications.

VOC CPBE3 — Basic Excel 3

Using desktop publishing software to integrate text and multimedia applications. (Formerly VOC CP10)

VOC CNT51 — A+ Certifcation Preparation

OPPORTUNITIES

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

Personal computer (PC) servicing. Includes isolating, identifying, and repairing specific problems in the computer environment at the hardware level. Prepares students for the A+ Certification Exam.

VOC CNT56 — Home Theater, Home Integration and Home Security Systems

Home theater, home integration, and other home management systems. Emphasis on home theater, home management PLCs, security hardware and programming and the installation and servicing of such systems. Prepares the student for the California State Contractors C-7 voltage systems license.

VOC CNT60 — A+ Certification Preparation

Prepares the student and qualified computer technician for the A+ certification examination. All aspects of the Core and OS test modules will be stressed through both lecture review and test simulation software.

VOC CNT62 — Network+ Certification Preparation

Prepares the student and/or A+ certified technician for the Network+ Certification Examination. Individuals preparing for a job in the computer networking industry or who wish to become Network+ certified will find this course invaluable.

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<tbody>
<tr>
<td>VOC CRS10</td>
<td>Introduction to Correctional Science</td>
<td>The field of corrections: county jail, probation, the California youth authority and the Department of Corrections as members of the Criminal Justice System. Includes philosophy, past and present practices and the criminal justice and correctional processes.</td>
</tr>
<tr>
<td>VOC CRS15</td>
<td>Control and Supervision of the Offender</td>
<td>Examine methods of controlling and supervising inmates. Emphasizes California's methods in rapidly-expanding institutions. Students will visit an offsite facility.</td>
</tr>
<tr>
<td>VOC CRS20</td>
<td>Correctional Law</td>
<td>Legal and due process rights for inmates. Inmate rights vs. needs of society, State, federal and appellate court decisions.</td>
</tr>
<tr>
<td>VOC CRS25</td>
<td>Probation and Parole</td>
<td>Historical development of probation and parole with emphasis on current California programs. Defines the roles of courts, parole boards and the duties and responsibilities of the staff of probation and parole agencies.</td>
</tr>
<tr>
<td>VOC CRS30</td>
<td>Ethnic Relations in Corrections</td>
<td>Historical survey of racial, cultural, and gender biases in the American corrections system. Impact of cultural, racial and gender differences on correctional staff and client interaction.</td>
</tr>
<tr>
<td>VOC CRS35</td>
<td>Interviewing and Counseling in Corrections</td>
<td>Techniques of interviewing and counseling with emphasis on practical application. Needs of the client and agency will be stressed.</td>
</tr>
<tr>
<td>VOC CRS40</td>
<td>Crime and Delinquency</td>
<td>Criminal behavior and types of crime and effects on society and victims. Stresses property crime, property offender, motivation and methods of control used by society.</td>
</tr>
<tr>
<td>VOC CRS45</td>
<td>The Violent Offender</td>
<td>Violent crimes of felony assault, robbery, rape, the various types of homicide, and the characteristics of both the offender and the victim.</td>
</tr>
<tr>
<td>VOC EL10</td>
<td>Introduction to Mechatronics</td>
<td>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.</td>
</tr>
<tr>
<td>VOC EL11</td>
<td>Technical Applications in Microcomputers</td>
<td>Personal computer (PC) applications used in electronics technology. Includes word processing, spreadsheets, database, computer presentation methods, and internet research specifically designed for electronics technology.</td>
</tr>
<tr>
<td>VOC EL12</td>
<td>Computer Simulation and Troubleshooting</td>
<td>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 &quot;Electronics Workbench/Multisim&quot; software. Students who repeat this course will improve skills through further instruction and practice.</td>
</tr>
<tr>
<td>VOC EL50A</td>
<td>Electronics Circuits - Direct Current (DC)</td>
<td>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.)</td>
</tr>
<tr>
<td>VOC EL50B</td>
<td>Electronics Circuits (AC)</td>
<td>AC circuit theory covering inductors, capacitors, impedance, filters, decibels, and resonance. Analysis involves the use of complex numbers. Stresses passive components.</td>
</tr>
<tr>
<td>VOC EL51</td>
<td>Semiconductor Devices and Circuits</td>
<td>Solid-state devices and circuits, including bipolar-junction and field-effect transistors, rectifier diodes, operational amplifiers, and thyristors. Analog circuits studied include discrete and integrated circuit amplifiers, voltage regulators, oscillators and timers. Emphasizes configurations, classes, load lines, characteristic curves, gain, troubleshooting, measurements and frequency response.</td>
</tr>
<tr>
<td>VOC EL53</td>
<td>Communications Circuits Theory</td>
<td>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.</td>
</tr>
<tr>
<td>VOC EM65A</td>
<td>Mathematics of Electronics - DC</td>
<td>Mathematics of DC circuits analyzing passive circuits including Ohm’s Law, Kirchoff’s Law, voltage dividers, current dividers, and network theorems.</td>
</tr>
<tr>
<td>VOC EM65B</td>
<td>Mathematics of Electronics - AC</td>
<td>Mathematics of AC circuits analyzing passive circuits including resistance, reactance, impedance, resonance, and complex numbers (polar and rectangle).</td>
</tr>
</tbody>
</table>
**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.

**OCCUPATIONAL ELECTRONICS AND COMPUTER TECHNOLOGY**

**VOC EST50 — Electrical Fundamentals for Cable Installations**
Electrical fundamentals for cable and wire installations and other low voltage systems. Includes DC/AC, solid-state devices, digital and microprocessor devices and their application to cable installations. Prepares students for the California State Contractors C-7 low voltage systems license.

**VOC EST52 — Fabrication Techniques for Cable Installation**
Fabrication techniques used in the installation of home theater, computer networks, home automation, and other low voltage system applications. Emphasis on hand and power tools, construction methods and materials as they apply to cable and wire installations.

**VOC EST54 — Cabling and Wiring Standards**
Cable and wire standards of video, voice and data wiring for home theater, computer networks, home automation, telecommunications, and other low voltage system installations. Emphasis on copper wire, coax, fiber optic, and structured cables. Prepares students for the California State Contractors C-7 low voltage systems license.

**VOC EST56 — Home Electronic Systems**
Home theater, home integration, and other home management systems. Emphasis on home theater, home management PLCs, security hardware and programming and the installation and servicing of such systems. Prepares students for the California State Contractors C-7 low voltage systems license.

**VOC EST62 — Electronic Troubleshooting - 1**
Troubleshooting basic electronic circuits and systems to component level. Circuits include: power supplies, amplifiers, audio circuits, home theater audio (Dolby 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.

**OCCUPATIONAL FASHION AND FASHION DESIGN**

**VOC FSH08 — Introduction to Fashion**
Fashion industry from concept to consumer: industry background and technology. Includes design, manufacturing, distribution, sales and promotion with emphasis on career opportunities and qualifications.

**VOC FSH09 — History of Costume and Fashion**
A survey of Western costume and fashion from antiquity to contemporary times. Emphasis is placed on style development as it relates to social, economic and political forces, and the relationship of historic styles to current fashion.

**VOC FSH10 — Clothing Construction 1**
Essentials of industry standard apparel construction techniques using a variety of machines and equipment. Students will be given instruction in single needle machine operation, industrial overlock operation and garment assembly.

**VOC FSH12 — Clothing Construction 2**
Advanced industry construction techniques using overlock and single needle machines.

**VOC FSH15 — Aesthetic Design in Fashion**
Design principles and influences in apparel selection and fashion design. Projects applying design elements and principles using CAD software.

**VOC FSH17 — Textiles**
Manufacturing of textiles/fabrics and factors that determine the suitability for end use. Topics covered include natural and synthetic fibers, yarns, fabric construction, dyes, finishes, legislation and care. Emphasis is placed on selection criteria for textile product design and recent developments in the textile field.

**VOC FSH20 — Illustration for Fashion and Costume Design**
Drawing techniques for fashion and theatrical costume design. Application of the basic techniques used in drawing a well-proportioned male and female figure and in rendering garment flats using texture, fabric and design detail. Students will explore a variety of mediums.

**VOC FSH21 — Patternmaking 1**
Theory and application of basic flat patternmaking techniques to create garment designs using industry standards. By means of dart and seam manipulation, patterns will be created, constructed and fitted.

**VOC FSH22 — Fashion Design By Draping**
Three-dimensional dress design through draping fabrics directly to a dress form to create original designs and patterns or interpret fashion illustrations. VOC FSH21 is recommended as a pre-requisite for this course.

**VOC FSH23 — Patternmaking 2**
Intermediate pattern drafting and flat pattern-making, with the introduction to the sizing of patterns/grading. Development of patternmaking skills to include two-way stretch knits, swimwear, and complex construction. Students apply commercial manufacturing standards in producing size ranges for misses’ and women’s wear, to include skirts, pants, bodices, sleeves and collars.

**VOC FSH62 — Retail Store Management and Merchandising**
Principles and practices used in the retail buying and merchandising environment. This course emphasizes the buyer’s role in merchandising management, pricing strategies, promotion, retail formulas and costing calculations.

**OCCUPATIONAL GEOGRAPHY**

**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.

**OCCUPATIONAL HEALTH**

**VOC ANA50 — Basic Anatomy and Physiology**
Introduction to human anatomy and physiology by systems, with brief descriptions of biochemistry, cell biology and molecular biology. Upon completion, students will understand normal functions and be able to recognize pathologies.

**VOC CPR01 — BLS Heartsaver Course - Adult**
This three (3) hour course is designed to teach the life-saving skills of Cardiopulmonary Resuscitation, the first aid techniques for choking emergencies, and how to respond to general life-threatening emergency situations. Students will learn about the risk factors associated with heart attacks and strokes. Successful completion of the course will provide the student with an American Heart Association Heartsaver CPR Level A Completion Card, renewable in two years.

**VOC HHA — Home Health Aide**
Preparation to work in a skilled nursing facility and to pass the California Long-Term Care CNA exam. Co-requisite: Enrollment in VOC HLTH 05
VOC HTH01 — Certified Nursing Assistant
Prepares participant to work in a skilled nursing facility and pass California Long-Term Care CNA exam.
Prerequisites:
- Current American Heart Association BLS for Health Care Providers card (must be valid for course duration)
- Completed Technology and Health Division Student Medical History and Physical exam form within the last 3 months
- Current Live Scan fingerprint documentation.
- Valid identification (CA driver’s license or CA ID card) and Social Security card
Co-requisite: Enrollment in VOC HTH05

VOC HTH04 — Acute Care Nursing Assistant
This course Preparation of CNA to provide basic personal care to patients in acute care facilities and hospitals.

VOC HTH05 — Health Careers Resource Center
Health occupational training and experience using instructional equipment and simulators for health occupation competencies.

VOC HTH12 — Medical Terminology
Medical terminology used in various allied health fields.

VOC HTH18 — In-Home Care of Alzheimer’s and Dementia Clients
Information and educational activities with techniques to enhance one’s ability to work with Alzheimer’s/Dementia consumers, with an emphasis on effective communication skills and appropriate activities when working with consumers and delivering direct care.

VOC IHSS — In-Home Support Services
Preparation to assist elderly, disabled and ill persons living at home. Communication skills, maintenance of a healthy environment and procedures for emergencies. Physical, emotional and developmental characteristics of the patients served; personal hygiene, safe transfer techniques and basic nutrition.

VOC PT81 — Physical Therapy Aide
Role and skills of physical therapy aide. Includes terminology, procedures and interpersonal skills.

VOC RDTEC — Intravenous Therapy for Radiologic Technology
Principles of techniques of venipuncture. Includes anatomy and physiology of sites, instruments, intravenous (IV) solutions, equipment, puncture techniques, hazards and complications, emergency care, post-puncture care.

VOC ID10 — Introduction to Interior Design
Practice of interior design and the planning of total interior environments that meet individual, functional and environmental needs. Fieldtrips may be required.

VOC ID10L — Introduction to Interior Design Lab
Application of the interior design practice and the planning of total interior environments that meet individual, functional and environmental needs. Fieldtrips may be required.

VOC ID12 — Materials and Products for Interior Design
Analysis, application and evaluation of products and materials used in interior design. Fieldtrips are required.

VOC ID14 — History of Furniture and Decorative Arts
Historic development of structure, interior spaces, furniture and decorative arts throughout the world. Interior architecture is illustrated in this overview of design heritage and antiquity to present. Emphasis is placed on style development as it relates to social, economic and political influences as well as the use of materials and technology. Fieldtrips may be required.

VOC ID100 — Fundamentals of Interior Design
Application of design principles and elements in planning of total interior environments that meet individual, functional, legal and environmental needs. Selection of all materials and products used in interior environments will be emphasized for the functional aesthetic quality. (Recommend concurrent enrollment in ID 105.)

VOC MF10 — Mathematics & Blueprint Reading for Manufacturing
Applications of mathematical principles, including fractions, decimals, ratio/proportion, geometry and trigonometry to manufacturing problems and their solutions. Reading and interpreting part drawings, assembly drawings and sketches used in the manufacturing industry.

VOC MF11 — Manufacturing Processes 1
Manual and computerized manufacturing, manual lathes and mills, tool nomenclature and Computerized Numerical Control (CNC) operations. Operation of CNC machines. Students who repeat this course will improve skills through further instruction and practice.

VOC MF12 — Manufacturing Processes 2
The study of manufacturing equipment and manufacturing processes. Theory and practice in milling operations, tooling setup, metallurgy, heat treatment, precision grinding, and basic tool design.

VOC MF38 — MasterCAM 1
Use MasterCAM software to create wire-frame part geometry, add tool paths and create CNC code for CNC mills and CNC lathes. Students who repeat this course will improve skills through further instruction and practice.

VOC MF38B — Advanced MasterCAM
Use MasterCAM software to create wire-frame 3D/ multi-axis part geometry, add tool paths, and create CNC code for CNC mills and CNC lathes. Students who repeat this course will improve skills through further instruction and practice.

VOC MF38C — MasterCAM Solids
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 MF85 — Manual Computerized Numerical Control (CNC) Programming
Theory and practice in manually developing CNC programs. Methods of transmitting data to CNC machines and physical set-up and operations of CNC equipment. Students who repeat this course will improve skills through further instruction and practice.

VOC NF81 — Cooking for Your Heart and Health
Basic food preparation knowledge, skills, and experience. Principles and techniques of healthful food preparation and investigation of chronic disease prevention through dietary means. Includes laboratory experience in preparation of healthful foods and meals. Basic food preparation knowledge, skills, and experience is advised. Off-campus meetings may be required.

VOC NF82 — Vegetarian Cuisine
Principles and techniques of vegetarian food preparation and investigation of issues related to vegetarian eating practices. Includes laboratory experience in preparation of vegetarian foods and meals. Basic food preparation knowledge, skills, and experience advised. Off-campus meetings may be required.

VOC CPDI — Digital Photography for the Beginner
Operation of digital cameras, image management and composition, development of research skills using the Internet, and imaging graphics software. A hands-on course which includes scheduled field trips.

VOC GRP10 — Photo Imagery
Adobe Photoshop software skills, techniques and digital workflow practices from digital image editing and retouching to the composited imagery commonly created for using photography, commercial design, printing and publishing, the Internet and multimedia authoring production.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>VOC GRP20</td>
<td>Multimedia Graphics</td>
<td>Multimedia graphics software skills and production techniques for combining text, image, audio, video, animation and scripting media to author multimedia projects commonly created for self-expression, entertainment, commercial design, the Internet and multimedia authoring production.</td>
</tr>
<tr>
<td>VOC GRP18</td>
<td>3D Graphics Imagery</td>
<td>3D graphics modeling software skills and production techniques from 2D orthographic drawing to the creatively conceived 3D imagery and animated environments commonly created for self-expression, entertainment, commercial design, printing and publishing, the Internet and multimedia authoring production.</td>
</tr>
<tr>
<td>VOC GRP16</td>
<td>Illustrator Graphics</td>
<td>Adobe Illustrator software skills, techniques and digital workflow from essential digital drawing basics to creatively conceived illustrative imagery and renderings commonly created for use in commercial design, printing and publishing, the Internet and multimedia authoring production.</td>
</tr>
<tr>
<td>VOC GRP15</td>
<td>InDesign Graphics</td>
<td>Adobe InDesign software skills, techniques and digital workflow practices commonly created for use in essential computer graphics production processes for commercial design, printing and publishing, the Internet and multimedia authoring production.</td>
</tr>
<tr>
<td>VOC GRP12</td>
<td>Photoshop Imagery Extended</td>
<td>Adobe Photoshop Extended software skills and techniques for the creative photorealistic imagery commonly used in photography, commercial design, printing and publishing, the Internet and multimedia authoring production.</td>
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**School of Continuing Education**

<table>
<thead>
<tr>
<th>Course Code</th>
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</thead>
<tbody>
<tr>
<td>VOC PHO01</td>
<td>Laboratory Studies in Black &amp; White Photography</td>
<td>Extended black and white laboratory experiences to supplement those available in the regular program. Provides students the opportunity to pursue more advanced projects and experiments.</td>
</tr>
<tr>
<td>VOC PHO02</td>
<td>Advanced Photoshop</td>
<td>Extended advanced black and white laboratory experiences with medium and large format cameras to improve skills and pursue more advanced photographic printing, and enlarging techniques.</td>
</tr>
<tr>
<td>VOC PHO08</td>
<td>Photoshop Imagery</td>
<td>Adobe Photoshop Extended software skills and techniques for the creative photorealistic imagery commonly used in photography, commercial design, printing and publishing, the Internet and multimedia authoring production.</td>
</tr>
<tr>
<td>VOC PHO07</td>
<td>Digital Image Editing for Photographers</td>
<td>Software and techniques including digital workflow practices, digital image editing, enhancing and retouching methods commonly used in photography.</td>
</tr>
<tr>
<td>VOC PHO09</td>
<td>Digital Image Editing for Photographers</td>
<td>The basic mechanical, optical and chemical principles of photography, including digital image systems. Laboratory experience involves problems related to camera and image output techniques.</td>
</tr>
<tr>
<td>VOC PHO10</td>
<td>Basic Digital &amp; Film Photography</td>
<td>The basic mechanical, optical and chemical principles of photography, including digital image systems. Laboratory experience involves problems related to camera and image output techniques.</td>
</tr>
<tr>
<td>VOC PHO11</td>
<td>Intermediate Photography</td>
<td>Current professional techniques and studio lighting. Includes studio and field assignments related to problems encountered while professionally photographing people and products. Topics include medium and large format film and digital cameras, computer basics for professional photographers and studio lighting. Students must furnish a digital single lens reflex (DSLR) camera. Field trips may be required.</td>
</tr>
<tr>
<td>VOC PHO12</td>
<td>Photographic Alternatives</td>
<td>Alternative photographic processes. Instant films: lifts and transfers, specialized lighting, stain toning, emulsion coating, scenography and hand-made camera construction will be applied to produce images not considered common to making photographic prints.</td>
</tr>
<tr>
<td>VOC PHO13</td>
<td>Digital Color Management</td>
<td>Digital color management software and hardware skills, techniques and digital workflow practices commonly used in photography.</td>
</tr>
<tr>
<td>VOC PHO14</td>
<td>Commercial Lighting</td>
<td>Use of studio equipment, and studio and location lighting techniques used in all aspects of commercial photographic applications. Field trips may be required.</td>
</tr>
<tr>
<td>VOC PHO15</td>
<td>History of Photography</td>
<td>Survey of the history of photography from circa 1839 to the present. An introduction to concepts of photographic representation and their impact on society.</td>
</tr>
<tr>
<td>VOC PHO16</td>
<td>Fashion Photography</td>
<td>Professional illustrative, editorial and advertising fashion photography. Studio and location production in digital capture. Business aspects of operation and working with clients are presented. Off-campus assignments may be required.</td>
</tr>
<tr>
<td>VOC PHO17</td>
<td>Photocommunication</td>
<td>Affects that camera controls have on visual communication with photographs. Includes message enhancement using optical and digital controls, depth of field, lenses, lighting, composition, book, black and white vs. color images, and documentary and journalistic styles.</td>
</tr>
<tr>
<td>VOC PHO18</td>
<td>Portrait and Wedding Photography</td>
<td>Professional studio and field techniques and procedures for informal, formal, and environmental portraits with an emphasis on wedding photography. Includes lighting, color correction, digital techniques, photographic critique, and posing for individuals, couples, families and groups in the studio and on location. Also includes business and legal issues for wedding and portrait photography businesses. Off-campus assignment required.</td>
</tr>
</tbody>
</table>
VOC THR14 — Stagecraft
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.

VOC THR15 — Play Rehearsal and Performance Planning, preparation and presentation of college-sponsored dramatic presentations. Emphasis on acting with some technical theater assignments. Students who repeat this course will improve skills through further instruction and practice. Attendance at performances is required.

VOC THR16 — Theatrical Make-Up
An introduction to the theory and practice of make-up for the stage. The student will gain practice in the design and application of straight, stylized character, and other make-up techniques.

VOC THR18 — Technical Theater Practicum Participation in the technical preparation and operation of productions presented to the community. The student will be involved in one or more of the following areas: stage scenery construction, stage lighting 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 THR0 — 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.

VOC TR10A — Introduction to Tutoring
Introduction to tutoring, with an emphasis on tutoring strategies, problem solving and working with a diverse student population.

VOC TR10B — Tutoring in the Language Arts
Tutoring in the English language with an emphasis on approaches to working with students on written drafts and addressing the needs of non-native speakers.

VOC TR10C — Tutoring as a Supplemental Instructor
Tutoring as a Supplemental Instructor with an emphasis on tutoring in the classroom and in small group sessions under the supervision of a designated instructor.

VOC TR10D — Tutoring in Mathematics
Tutoring in mathematics with an emphasis on strategies to promote active learning and dealing with specific obstacles in developmental algebra.

VOC TR10R — Tutoring in Reading
Methods of assessment, management of sessions and application of strategic reading processes. This course prepares students to become reading tutors for all READ students.

VOC WL30 — Metal Sculpture
For students interested in art seeking the proper operation of welding processes related to the sculpting industry. Emphasizes the fundamentals of three-dimensional design. Includes demonstrations and exercises in welding as it relates to the art industry.

VOC WL40 — Introduction to Welding
Fundamentals of welding processes related to the areas of fabrication, construction, machine tool, aerospace and the transportation industries.

VOC WL50 — Oxyacetylene Welding
Oxyacetylene fusion welding, non-fusion welding and cutting. Develops understanding of and fundamental skills in modern welding practices.

VOC WL51 — Basic Electric Arc Welding
Electric arc welding, electrode and alloy electrode selection, American Welding Society’s (AWS) procedure for certification.

VOC WL53A — Welding Metalurgy
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. Computation necessary to calculate materials, costs, sizes, and fractional, decimal and metric conversions.

VOC WL70A — Beginning Arc Welding
Develops manipulative skills and techniques for Shielded Metal Arc (SMAW) and (Flux Cored Arc (FCAW) welding processes in the flat and horizontal positions using AC and DC welding currents on carbon steel.

VOC WL70B — Intermediate Arc Welding
Welding high alloy steel with both Shielded Metal Arc (SMAW) and Flux Core Arc (FCAW) welding processes in the vertical and overhead positions with an introduction to Gas Metal Arc (GMAW) and Gas Tungsten (GTAW) welding.

VOC WL70C — Certification for Welders
Building construction for the advanced arc welding student. Special emphasis will be placed on welding symbols and the American Welding Society’s (AWS) D1.1 and D1.3.

VOC WL80 — Fabrication and Construction Welding
Theory and practical applications of welding used in industry and construction. Designed to adapt and upgrade skills to industry standards. Includes project models such as ornamental iron gates and fences and material storage components.

VOC WL81 — Pipe and Tube Welding
Advanced course designed to enable students with “all positions” welding skills in SMAW to apply welding skills to the pipe welding industry. Welding processes will include SMAW, GMAW, FCAW, FCW on a variety of materials and configurations on sub-critical and critical piping and tubing.

VOC WL90A — Gas Tungsten Arc Welding
Advanced Gas Tungsten Arc Welding (GTAW) or tungsten inert gas (TIG) of steel, aluminum, corrosion resistant steel (CRS), and exotic metals. All position welds with many surfaces and transitions.

VOC WL90B — Semiautomatic Arc Welding Process
Semiautomatic Welding Processes including Gas Metal Arc Welding (GMAW), Flux Cored Arc Welding (FCAW), Submerged Arc Welding (SAW) with solid and tubular wires with and without gas shielding. All position welds with many varying thickness will be covered.

VOC WL91 — Automotive Welding, Cutting and Modification
The art of welding and cutting metals commonly used in the automotive industry. Gas Metal Arc (GMAW/MIG), Gas Tungsten Arc (GTAW/TIG), Plasma Arc Cutting (PAC), Oxy-fuel Cutting (OFC) and welding will be covered.
Animals on Campus
by any person attending, regardless of age, is forbidden by State law. laboratories when they are engaging in or observing the use of hazardous
Alcohol and Other Drugs
and in Disabled general campus attire.
http://www.mtsac.edu/governance/trustees/policies.html
Campus Disturbances

COLLEGE POLICIES
For detailed information regarding Mt. San Antonio College Board of Trustees Policies (BP) and Administrative Procedures (AP), go to http://http://www.mtsac.edu/governance/trustees/apbp/
Accommodations and Academic Adjustments for Students with Disabilities
Under Federal and State laws, the College is required to make modifications to academic requirements and practices as necessary in order to ensure that they do not discriminate against a qualified student with a disability. The College is also required to have a policy and procedure for responding to students with verified disabilities who request academic adjustments. Students with disabilities have the right to receive reasonable academic adjustments in order to create an educational environment where they have equal access to instruction without fundamentally altering any course, educational program or degree. Board Policy (BP 5140) and Administrative Procedure (AP 5140) for Students with Disabilities may be found at http://www.mtsac.edu/governance/trustees/policies.html and in Disabled Student Programs & Services, Ext. 4290.

Alcohol and Other Drugs
The possession or consumption of alcoholic beverages or illegal drugs prior to, or during any College-sponsored activity, on or off-campus, by any person attending, regardless of age, is forbidden by State law.
The federal Drug-Free Schools and Communities Act Amendments of 1989, P.L. 101-226 has mandated that as of October 1, 1990, there will be no drug usage by students, staff, or faculty on college campuses anywhere in the United States. Please see the current Schedule of Classes for the College’s Alcohol and Other Drugs Policy (BP 3550, AP 3550).

Animals on Campus
Board Policy does not allow for any animals on campus except as provided for by the California Penal Code, Section 365.5 (specially trained guide, signal, or service dogs). Leasing a pet in a parked vehicle, no matter what provisions are made for its safety, may constitute unnecessary suffering or cruelty which is a violation of California Penal Code 597. (BP 3940)

Campus Disturbances
In accordance with California Penal Code (P.C. Section 626), the willful disturbance of classes, College activities, or procedures is a misdemeanor.
Campus Hours
The College offers instruction between the hours of 6:30 a.m. and 10:00 p.m., Monday through Sunday. Office hours vary depending on the services provided. Visit the website or call for specific office hours.

Children on Campus
While on the campus of Mt. San Antonio College, children under 12 years of age who are not approved for enrollment must be directly supervised at all times by a responsible adult. Such children shall not be left unattended in College buildings, outdoor areas, or in private automobiles (BP 3930).

Classroom Visitors and Other Attendees
Classroom activities are intended to benefit those students officially registered for the class. Others are permitted to attend a regularly scheduled class meeting only in specific situations. The professor assigned to teach the class may grant permission to visit the class. Disabled Student Programs and Services (DSP&S) may authorize a person to be a Personal Care Attendant (PCA) when the need for such accommodation is authorized by DSP&S prior to beginning service as a PCA (BP 4700, AP 4700).

Dress Regulation
Students are expected to dress in accordance with commonly accepted standards of appropriateness. It is mandatory that shoes be worn as general campus attire.

Eye Protection
Pursuant to the Education Code, the following regulation regarding eye protective devices shall be observed: Students, teachers, and visitors shall wear approved eye protective devices in all classes, shops, and laboratories when they are engaged in or observing the use of hazardous materials likely to cause injury to the eyes. Such eye protective devices shall meet the requirements of the American National Standards Institute Safety Code.

Non-Discrimination Policy
Mt. San Antonio College is committed to equal opportunity in educational programs, employment, and all access to institutional programs and activities. The College provides an educational and employment environment in which no person shall be unlawfully denied full and equal access to, the benefits of, or be unlawfully subjected to discrimination on the basis of ethnic group identification, national origin, religion, age, sex or gender, sexual orientation, race, color, ancestry, medical condition, marital status, veteran status, sexual orientation, or physical or mental disability (including HIV and AIDS), or on the basis of these perceived characteristics or based on association with a person or group with one or more of these actual or perceived characteristics, in any program or activity that is administered by the College. The lack of English language skills will not be a barrier to admission.

Students who believe they have been discriminated against may begin the process with Lorraine Y. Jones, Director EEO Programs, Human Resources Office, Building 4, Room 1460, 909-274-4225. Harassment and discrimination investigation procedures are described in Administrative Procedure 3435. Formal complaint forms can be found at: http://extranet.cccco.edu/Divisions/Legal/Discrimination.aspx. All complaints of unlawful discrimination or sexual harassment by students of the College will be fully investigated by Human Resources. College employees have similar rights which can be found in the College’s Board Policy and Administrative Procedures. (BP 3410, 3430, AP 3410, 3430, 3435)

Reserve Officer Training Corps (ROTC)
Students interested in a military career can join an approved Reserve Officer Training Corps (ROTC) program offered through local universities. These programs are open to community college students pursuing an undergraduate degree, prior to transfer. Air Force ROTC programs are offered through Cal State San Bernardino, Loyola Marymount University, University of Southern California (USC) and UCLA; Army ROTC programs are offered at Claremont McKenna College, USC, UCLA and Cal State Fullerton; and Navy ROTC programs are offered through USC and UCLA. Competitive scholarships are available to qualified applicants as well as allowances for books and other costs. Students are advised to contact the ROTC program at the participating university.

Sexual Harassment & Sexual Violence
Sexual violence, including sexual assault, harassment, rape and stalking, are crimes that are not tolerated on this campus. Mt. San Antonio College has adopted Board policies and procedures to address sexual crimes, sanctions for offenders, and to outline access to treatment and general information for victims (BP 3430, 3500, 3540 and AP 3430, 3500, 3540). All applicable punishment, including criminal charges and disciplinary action, shall be applied whether the victim is an employee, student or member of the general public.

Services available to help assure student safety include:
- Public Safety Escorts are available during evening hours to escort students safely to their car. Escorts are stationed throughout campus or are provided upon request. Please call ext. 4233 or (909) 274-4233.
- Blue emergency telephone towers located throughout the campus and parking lots access Public Safety immediately for assistance.
- Public Safety can be reached at (909) 274-4555.
- Call 911 for any emergency. Be prepared to identify your exact location.
- Contact Student Life Office at ext. 4525 to report incidents.
- Student Health Services at ext. 4400 provides personal counseling and medical attention.
College Policies and Notices

Smoking on Campus
Student, employee, and visitor health is a primary concern of Mt. San Antonio College. Smoking will be prohibited on Mt. San Antonio Community College District property except in designated smoking areas. Designated smoking areas can be found on campus maps and the College website. Violations of this policy will be subject to a citation and a fine, as allowed per Government Code 7597.1. Appeals may be submitted in writing to Public Safety within twenty-one (21) calendar days of issuance of the citation. (BP 3565, AP 3565)

Standards of Conduct
(BP 5500) Adopted 6/23/04
Copies of the Standard of Conduct Policy can be obtained in Building 9C.
The College President/CEO shall establish procedures for the imposition of discipline on students in accordance with the requirements for due process of the federal and State law and regulations.

The procedures shall clearly define the conduct that is subject to discipline, and shall identify potential disciplinary actions, including but not limited to the removal, suspension, or expulsion of a student.

The Board shall consider any recommendation from the College President/CEO for expulsion. The Board shall consider an expulsion recommendation in closed session unless the student requests that the matter be considered in a public meeting. Final action by the Board on the expulsion shall be taken at a public meeting.

The procedures shall be made widely available to students through the College catalog and other means.

The following conduct shall constitute good cause for discipline, including but not limited to the removal, suspension, or expulsion of a student:
1. Causing, attempting to cause, or threatening to cause physical injury to another person.
2. Possession, sale or otherwise furnishing any firearm, knife, explosive or other dangerous object, including but not limited to any facsimile firearm, knife or explosive, unless, in the case of possession of any object of this type, the student has obtained written permission to possess the item from a College employee, which is concurred with by the College President/CEO.
3. Unlawful possession, use, sale, offer to sell, or furnishing, or being under the influence of, any controlled substance listed in Chapter 2 (commencing with Section 11053) of Division 10 of the California Health and Safety Code, an alcoholic beverage, or an intoxicant of any kind; or unlawful possession of, or offering, arranging or negotiating the sale of any drug paraphernalia, as defined in California Health and Safety Code Section 11014.5.
4. Committing or attempting to commit robbery or extortion.
5. Causing or attempting to cause damage to College property or to private property on campus.
6. Stealing or attempting to steal College property or private property on campus, or knowingly receiving stolen College property or private property on campus.
7. Willful or persistent smoking in any area where smoking has been prohibited by law or by regulation of the College.
8. Committing sexual harassment as defined by law or by College policies and procedures.
9. Engaging in harassing or discriminatory behavior based on disability, gender, gender identity, gender expression, marital status, nationality, race or ethnicity, religion, sexual orientation, or any other status protected by law.
10. Engaging in intimidating conduct or bullying against another student through words or actions.
11. Willful misconduct that results in injury or death to a student or to College personnel or which results in cutting, defacing, or other injury to any real or personal property owned by the College or on campus.
12. Disruptive behavior, willful disobedience, habitual profanity or vulgarity, or the open and persistent defiance of the authority of, or persistent abuse of, College personnel.
13. Cheating, plagiarism (including plagiarism in a student publication), or engaging in other academic dishonesty.
14. Dishonesty, forgery, alteration or misuse of College documents, records or identification; or knowingly furnishing false information to the College.
15. Unauthorized entry upon or use of College facilities.
16. Lewd, indecent or obscene conduct on College-owned or controlled property, or at College-sponsored or supervised functions.
17. Engaging in expression which is obscene, 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.
18. Persistent, serious misconduct where other means of correction have failed to bring about proper conduct.
19. Unauthorized preparation, giving, selling, transfer, distribution, or publication, for any commercial purpose, of any contemporaneous recording of an academic presentation in a classroom or equivalent site of instruction, including but not limited to handwritten or typewritten class notes, except as permitted by any College policy or Administrative Procedure.
20. Harassment of students and/or College employees that creates an intimidating, hostile, or offensive environment.
21. Violation of College rules and regulations including those concerning affiliate clubs and organizations, the use of College facilities, the posting and distribution of written materials, and College safety procedures.

Student Academic Honesty
All members of the academic community have a responsibility to ensure that scholastic honesty is maintained. Faculty have the responsibility of planning and supervising all academic work in order to encourage honest and individual effort, and of taking appropriate action if instances of academic dishonesty are discovered.

Honesty is primarily the responsibility of each student. The College considers cheating to be a voluntary act for which there may be reason, but for which there is no acceptable excuse.

Cheating and Plagiarism
Cheating (Academic Dishonesty)
The term “Cheating” includes but is not limited to:
- Plagiarism
- Receiving or knowingly supplying unauthorized information
- Using unauthorized material or sources
- Changing an answer after work has been graded and presenting it as improperly graded
- Illegally accessing confidential information through a computer
- Taking an examination for another student or having another person take an examination for you
- Presenting another person's work as your own
- Forging or altering registration or grade documents
- Submitting collectively developed work as your own, unless specifically allowed by the professor

A professor who determines that a student has cheated may give the student a failing grade for the assignment and should report the alleged academic dishonesty to the Student Life Office, which will maintain a record of the report and appropriate action under the provisions of the Administrative Procedures on Student Discipline (AP 5520).

Students are advised that allegations of dishonesty are serious, and can lead to disciplinary sanctions including suspension and expulsion. (BP 4290, AP 4290)
Plagiarism

“Plagiarism is a direct violation of intellectual and academic honesty. Although it exists in many forms, all plagiarism refers to the same act: representing somebody else’s words or ideas as one’s own. The most extreme forms of plagiarism are the use of material authored by another person or obtained from a commercial source, or the use of passages copied word for word without acknowledgment. Paraphrasing an author’s idea or quoting even limited portions of his or her text without proper citation is also an act of plagiarism. Even putting someone else’s ideas into one’s own words without acknowledgment may be plagiarism. In none of its forms can plagiarism be tolerated in an academic community. It may constitute grounds for a failing grade, probation, suspension, or expulsion.”

“One distinctive mark of an educated person is the ability to use language correctly and effectively to express ideas. Faculty assign written work for the purpose of helping students achieve that mark. Each instructor will outline specific criteria, but all expect students to present work that represents the student’s understanding of the subject in the student’s own words. It is seldom expected that student papers will be based entirely or even primarily on original ideas or original research.”

“Therefore, to incorporate the concepts of others may be appropriate with proper acknowledgment of sources, and to quote others directly by means of quotation marks and acknowledgments is proper. However, if a paper consists entirely of quotations and citations, the paper should be rewritten to show the student’s own understanding and expressive ability. The purpose of the written assignment (i.e., development of communication and analytic skills) should be kept in mind as each paper is prepared. It should not be evaded through plagiarism.”**

“Adopted, with permission of California State University, Los Angeles, from their policy printed in the 1987–88 General Catalog.

Student Complaints/Grievance Process

Students are protected against capricious, arbitrary, unreasonable, unlawful, false, malicious or professionally inappropriate evaluations or behavior by a faculty member. Student complaints may be classified as grievances and fall into two categories: Academic, and Non-Academic. Academic grievances involve grades. To grieve a grade, a student must prove that the professor issued a grade by mistake, fraud, bad faith, or incompetence (Education Code 76224). Non-Academic grievances include: any act or threat of intimidation, harassment, or physical aggression, arbitrary action, violation of student rights, or imposition of sanctions without proper regard to College policy as specified in the Education Code, Board Policy, and/or Administrative Procedures, violation of Title IX Education Amendments of 1972, or violation of Section 504 of the Rehabilitation Act of 1973 with reference to the rights of disabled students.

Students can obtain Grievance Procedures and forms on-line at http://www.mtsac.edu/studentlife/studentgrievances.html.

Students are encouraged to follow the Mt. San Antonio College Complaint and Grievance process before attempting to file a complaint with the State. Issues that are not resolved at the campus level may be presented:

- To the Accrediting Commission for Community and Junior Colleges (ACCJC) at http://www.accjc.org/complaint-process if your complaint is associated with the institution’s compliance with academic program quality and accrediting standards. ACCJC is the agency that accredits the academic programs of the California Community Colleges.
- To the CCC Chancellor’s Office if your complaint does not concern CCC’s compliance with academic program quality and accrediting standards. http://californiacommunitycolleges.cccco.edu/complaintsform.aspx

Grievances must be filed no later than 30 school days (Monday - Friday when classes are in session) after the beginning of the primary term following the alleged violation, or 30 school days from the time that the student learns of the basis for the grievance. To begin the formal grievance process, students may obtain Grievance Procedures and forms from the Student Life Office, Building 9C. It is recommended that students meet with the Student Life Director regarding the grievance prior to starting the process since timelines are established for every step of the process and must be met precisely.

The process for filing and pursuing a grievance includes two levels: in Level I (informal level) the student picks up the grievance forms and official procedures from Student Life and attempts to resolve the problem by meeting first with the faculty member (or staff member/administrator for non-academic grievances) and then the faculty member’s department chair or immediate supervisor. If the complaint is not resolved at that level, the student will meet with the division dean of the faculty defendant in an effort to resolve the problem. In the event that the problem cannot be resolved within 10 school days, the student may proceed to Level II (formal grievance) in which the student submits all signed forms and documents to the Student Life Office within the established deadlines.

A Grievance Review Committee chaired by the Dean of Student Services will review the grievance documents. This Committee may forward the grievance for a formal hearing process to seek clarification from the parties involved. If the student or faculty/staff member chooses to appeal the decision of the Committee, the appeal is submitted to the College President. The final appeal process resides with the Board of Trustees; their decision concludes the grievance process (AP 5530).

Traffic and Parking

Users of Mt. San Antonio College campus roads and parking areas must observe and obey all traffic laws of the State of California and the College traffic rules and regulations adopted pursuant to Section 21113 of the California Vehicle Code and the Mt. San Antonio College Board of Trustees (BP 6730, AP 6750).

All vehicles parked in designated student lots MUST bear a valid parking permit. The Student Parking Permit is valid in designated student lots except pay lots or in spaces controlled by parking meters or reserved signage. Student Parking Permits are not valid in designated employee parking lots. Free 30-minute parking is available north of the Bookstore (Building 9A), west of the Administration Building (Building 4), and south of the Performing Arts Center. Permit parking regulations are strictly enforced 24 hours a day, 7 days a week.

NOTICES

Equal Opportunity Statement

The Board of Trustees of Mt. San Antonio College has a commitment to establishing and maintaining a policy of equal educational and employment opportunities and prohibiting discrimination based on sex, race, color, religious creed, national origin, ancestry, age over 40, marital status, physical or mental disability (including HIV & AIDS), sexual orientation, or Vietnam Era Veteran Status. This commitment applies to educational programs, activities, service, and employment practices (BP 3410, AP 3410).

Open Enrollment

All classes are open to all students who meet the course prerequisites and enrollment requirements, unless specifically exempted by statute. The College provides open access to all program offerings, opportunities, and support services without regard to sex, race, color, religious creed, national origin, ancestry, age over 40, marital status, physical or mental disability (including HIV and AIDS), sexual orientation, or Vietnam Era Veteran Status (BP 5052, AP 5052).

Public Safety

In compliance with the Clery Act, the College publishes an annual security report which contains information regarding campus crime statistics. This information may also be found on the website at www.mtsac.edu by clicking on Public Safety. Copies of the annual report can be obtained from the Public Safety Department in Building 23. A Public Safety crime log is published bi-monthly in the student newspaper and Emergency Procedures are posted throughout the campus. (BP 3515, AP 3515)
Emergency Procedures

Students and staff should report serious crimes and emergencies, i.e., fire/medical, occurring on campus to the Public Safety Department or call 911. When using an on-campus extension, call 9-911. Incidents may be reported to Public Safety by calling (909) 274-4555, 24 hours a day, seven days a week. Public Safety may also be contacted during and after business hours from public telephone locations on campus by dialing *91. In the event of an emergency, students and staff are requested to make a prompt and accurate report to the Public Safety Department. The Public Safety Department is located at the southeast portion of the campus off Bonita Drive in Building 23. (AP 3503)

Enforcement

The Mt. San Antonio College Public Safety Department has the authority to enforce the Student Discipline Code of Conduct and the State of California Penal Code under Education Code Section 72330(a). The Mt. San Antonio College Board of Trustees has established the Public Safety Department as a community college police department under Education Code Section 72330(a), which authorizes the governing board of a community college district to establish a community college police department under the supervision of a community college chief of police. Although a designated police department, the Mt. San Antonio College Public Safety Department has a memorandum of understanding mandated by the “Crime Awareness and Campus Safety Act of 1990,” that the Los Angeles County Sheriff’s Department has jurisdiction to investigate all crimes occurring on Mt. San Antonio College Campus. (BP 3520, AP 3520)

Crime Prevention

The Public Safety Department’s primary responsibility is the safety and security of all members of the College community. Every effort is made to inform students and staff of criminal activity or any other concern that may be an immediate threat to the safety and security of those on campus. Information and workshops on crime prevention are made available to College students and staff. It is the responsibility of every member of the campus community to act in ways that promote the safety of self, others, and the protection of District property. (AP 3500)

Campus Emergency Phone System

Mt. San Antonio College has installed a campus wide emergency phone system. This system is divided into two primary segments. The inner campus system consists of emergency phones that are placed on the outside of selected campus buildings and are identified by the familiar blue light affixed to the top of the phone housing.

The second segment of emergency phones consists of stand-alone emergency phone towers, located in open campus spaces, primarily in campus parking lots. These phone towers are identified by a blue light affixed to the top of the tower. Use of any of these emergency phones will connect the user to Campus Security during normal business hours, located in Building 23. During hours when the campus is closed, the Emergency phones will connect the user directly to a cell phone carried by Campus Security Officers who are on duty 24 hours a day, 7 days a week (BP 3505, AP 3500, 3503).

PUBLIC SAFETY DEPARTMENT STATISTICAL CRIME REPORT

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Notice of Students’ Rights and Privacy Act

Students at Mt. San Antonio College are notified annually of their rights under FERPA (Family Educational Rights and Privacy Act) within this section of the Catalog. More detailed information on student rights is available from http://www2.ed.gov/policy/gen/uid/pcor/ferpa/index.html. Following is a summary of the Mt. San Antonio College policy related to the Family Educational Rights and Privacy Act of 1974 (FERPA), PL. 93-380 (also referred to as the Buckley Amendment) and (Chapter 1297, Statutes of 1976, State of California.):

1. The College may release copies of or otherwise divulge material in the student’s educational records to the official agencies, groups, officials, or individuals specifically mentioned below:
   a. College staff members; provided that such employees have a legitimate educational interest to inspect such a record.
   b. Representatives of the Comptroller General of the United States, the Secretary of Education, and the administrative head of an educational agency, state education officials, and the United States Office of Civil Rights, where such information is necessary to audit a program.

2. Students and staff should report serious crimes and emergencies, i.e., fire/medical, occurring on campus to the Public Safety Department or call 911. When using an on-campus extension, call 9-911. Incidents may be reported to Public Safety by calling (909) 274-4555, 24 hours a day, seven days a week. Public Safety may also be contacted during and after business hours from public telephone locations on campus by dialing *91. In the event of an emergency, students and staff are requested to make a prompt and accurate report to the Public Safety Department.
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).

Student Right-to-Know Rates
In compliance with the Student-Right-to-Know and Campus Security Act of 1990 (Public Law 101-542), it is the policy of the Mt. San Antonio Community College District and Mt. San Antonio College to make available its completion and transfer rates to all current and prospective students. For this calculation, a fall cohort of all certificate-, degree-, and transfer-seeking first-time, full-time students are tracked over a three-year period. These rates do not represent the success rates of the entire student population at Mt. San Antonio College, nor do they account for student outcomes occurring after this three-year tracking period. A Completer is a student who attained a certificate or degree or became “transfer-prepared” during a three-year period. Students who are “transfer-prepared” have completed 60 transferable units with a GPA of 2.0 or better. Transfer students are those who transferred to another postsecondary institution (UC, CSU or another California Community College) prior to attaining a degree, certificate, or becoming “transfer-prepared” during a five-semester period. For up-to-date rates please see http://srtk.cccco.edu/index.asp
Faculty and Academic Administrators
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Faculty and Academic Administrators

Bowen, Robert (2006)  
Music  
B.A., M.A., University of California, Santa Barbara  
M.F.A., Ph.D., Princeton University

Boyer, Michelle (2007)  
Nursing  
B.S., Plattsburgh State University  
M.S.N., Syracuse University

Bradley, Julie (2005)  
Disabled Student Programs & Services  
B.A., University of California, Riverside  
M.S., California State University, Los Angeles

Bradshaw, George R. (2007)  
Dean, Enrollment Management  
B.A., M.A., California State University, San Bernardino  
Ph.D., University of Utah

Brantingham, John (2002)  
English, Literature & Journalism  
B.A., California State Polytechnic University, Pomona  
M.F.A., California State University, Long Beach

Bray-Ali, Julie (2001)  
Earth Sciences, Astronomy  
B.A., California State Polytechnic University, Pomona  
M.S., University of Southern California

Briggs, Christopher (2012)  
Biological Sciences  
B.S., University of California, Berkeley  
M.S., University of California, Riverside

Bro, Glenda (1991)  
American Language  
B.A., Dana College  
M.S., University of Nebraska  
TESOL Certificate, California State University, Fullerton

Brown, Ronald (2006)  
Fine Arts  
B.F.A., M.F.A., Art Center College of Design

Brown, Stephen (2013)  
Director, CalWORKs  
B.S., M.S.W., Jackson State University  
Ph.D., University of La Verne

Burgoon, Steve (2002)  
Commercial and Entertainment Arts  
B.A., University of Phoenix  
M.A., California State Polytechnic University, Pomona

Burgos, Matthew (2010)  
Theater  
B.A., University of Wisconsin-LaCrosse  
M.F.A., Florida State University

Burnes, Fatemeh (1992)  
Fine Arts  
B.A., Tehran University, Iran  
B.A., M.F.A., California State University, Fullerton

Burnett, Cynthia D. (1997)  
Counseling  
B.S., Northern Illinois University  
M.A., International Christian Graduate University  
M.S., California State University, Long Beach

Butler, Thomas (2011)  
Fine Arts  
B.A. Laguna College of Art and Design  
M.F.A., California State University, Long Beach

Calzada, Silver (1999)  
Counseling  
B.A., Pitzer College  
M.A.T., Harvard University

Cannon, Holly (1988)  
English, Literature & Journalism  
B.A., M.A., California State University, Northridge

Cannon, Kathleen (2005)  
History & Art History  
B.A., M.A., Ph.D., University of California, Los Angeles

Cantrell, David (2011)  
Communication  
B.S., University of California, San Diego  
M.S., California State University, Fullerton

Castillejos, Manuel (1989)  
Foreign Languages  
B.A., California State University, San Diego  
M.A., California State University, Fullerton

Cevallos-Castaneda, Susana (2005)  
Learning Assistance  
B.A., M.S., California State University, Fullerton

Chang, Chih-Ping (Andrew) (1997)  
Foreign Languages  
B.Ed., National Changhwa University of Education  
M.A., National Taiwan Normal University  
Ph.D., University of Southern California

Charbonneau, David (2007)  
Director, The Writing Center  
M.A., Northern Illinois University  
Ph.D., University of Wisconsin - Madison

Chavez, Dolores (2008)  
Mathematics, Computer Science  
B.A., University of California, Riverside  
M.A., California State University, San Bernardino

Chavez, Raul S. (2000)  
History & Art History  
B.S., California State Polytechnic University, Pomona  
M.A., California State University, Los Angeles  
Ph.D., University of California, Riverside

Chemistry  
B.S., University of California, Irvine  
M.S., Ph.D., University of California, Los Angeles

Chen, Guo-Ling Susie (2003)  
Learning Assistance  
A.D.N., National Taipei College of Nursing  
B.S.N., Kaohsiung Medical College  
M.A., Oklahoma City University  
M.N., University of California, Los Angeles  
Lifetime Instructor Credential, National Taiwan Normal University  
Ph.D., Western University of Health Sciences

Chen, Meghan M. (2000)  
Dean, Library & Learning Resources  
B.A., University of California, Los Angeles  
M.P.A., California Lutheran University  
M.A., California State University, Los Angeles

Childress, Scott (2014)  
Mathematics  
B.A., California State University Fullerton  
Ph.D., University of California, Riverside

Christopher, Micol (2005)  
Earth Sciences, Astronomy  
B.A., Harvard University  
M.S., Ph.D., California Institute of Technology

Churchill, Peter (2005)  
English, Literature & Journalism  
B.A., M.A., California State University, Fullerton

Clements, Todd (2012)  
Chemistry  
B.S., Harvey Mudd College  
M.S., Ph.D., University of California, San Diego
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  

Crichlow, Brian (2013)  
Kinesiology, Athletics & Dance  
Head Coach, Women’s Basketball  
A.A., Mt. San Antonio College  
B.A., University of La Verne  
M.S. California Baptist University  

Czaja, James (2013)  
Vice President, Human Resources  
A.A., Orange Coast College  
B.A., University of California, Irvine  
M.S., California State University, Fullerton  

Daland, William (2005)  
Counseling  
B.A., California State University, Fullerton  
M.S., California State University, Long Beach  

Danson, Erin (2014)  
English, Literature and Journalism  
B.A., M.A., California State University, Fullerton  

Davis, Maria (2005)  
Consumer Science & Design Technologies  
B.A., American InterContinental University  
Ed.D., California State University, Fullerton  

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  

Denny, Joseph (2010)  
Electronics and Computer Technology  
B.A., Azusa Pacific University  
B.S., California Polytechnic State University, Pomona  
M.A., California State University, Fullerton  

DePaola, Gina (1991)  
English, Literature & Journalism  
B.S., Metropolitan State College, Denver  
M.S., California State University, Long Beach  

Diem, Andrea (1991)  
Sociology, Philosophy  
B.A., University of California, San Diego  
M.A., Ph.D., University of California, Santa Barbara  

Di Mauro, Eileen (1991)  
Chemistry  
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  

Dorame, Francisco (2014)  
Associate Dean, Counseling  
B.A., M.A., California State University, Northridge  
Ed.D., California Lutheran University  

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  
Certified Mammographer  

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  

Earhart, Kimberly (2005)  
History & Art History  
A.A., Riverside Community College  
B.A., M.A., Ph.D., University of California, Riverside  

Eatman, Elisabeth (2006)  
Consumer & Design Technologies  
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Edson, Thomas (2006)  
English, Literature & Journalism  
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M.A., Chapman University  

Edwards, William (2005)  
Mathematics, Computer Sciences  
B.S., M.S., California State Polytechnic University, Pomona  

Ellwood, Jeffrey (2006)  
Music  
B.M., Berklee College of Music  
M.M., California State University, Fullerton  

Engle, Tim (2006)  
Disabled Student Programs & Services  
B.S., Liberty University  
M.A., Psy.D., Biola University  

Enke, Gary D. (1990)  
English, Literature & Journalism  
B.A., St. Joseph College  
M.A., Claremont Graduate School  

Esslinger, Sandra (2002)  
History & Art History  
M.A., University of Southern California  
Ph.D., University of California, Los Angeles  

Estes Jr., Edwin (2008)  
Business Administration  
A.B., University of Southern California  
J.D., Pepperdine University School of Law Member, California Bar Association  

Estrada, Maria (2004)  
English, Literature & Journalism  
B.A., M.A., California State Polytechnic University, Pomona  

Ezzell, Sun (2006)  
Learning Assistance  
B.A., M.A., Humboldt State University  

Farve, Debra (1988)  
English, Literature & Journalism  
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M.A., University of Notre Dame  
Ed.D., University of Southern California
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<td>Child Development</td>
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<td>Hernandez, Corie (2011)</td>
<td>Faculty and Academic Administrators</td>
<td>Psychiatric Technician</td>
<td>B.S., California State University, Fullerton</td>
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<td>Faculty and Academic Administrators</td>
<td>History &amp; Art History</td>
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<td>Herrera, Irene (2000)</td>
<td>Faculty and Academic Administrators</td>
<td>Director, EOPS</td>
<td>B.S., California State University, Fullerton M.S., California State University, Los Angeles</td>
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<td>Hoffman, Harlan (2005)</td>
<td>Faculty and Academic Administrators</td>
<td>History, Art History, Geography, Political Science</td>
<td>B.A., M.A., California State University, Fullerton Ph.D., University of California, Riverside</td>
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<td>Hoggan, Lynda Smith (1996)</td>
<td>Faculty and Academic Administrators</td>
<td>Biological Sciences</td>
<td>B.S., Slippery Rock University M.P.H., University of California, Los Angeles</td>
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<td>Faculty and Academic Administrators</td>
<td>Earth Sciences, Astronomy</td>
<td>B.S., University of Wisconsin-Madison M.S., University of California, Irvine</td>
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<td>A.S., Rio Hondo Community College B.S., M.S., California State University, Dominguez Hills</td>
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<td>Hoover, Karelyn (1995)</td>
<td>Faculty and Academic Administrators</td>
<td>Associate Dean, Natural Sciences (Interim)</td>
<td>B.S., M.S., New Mexico Institute of Mining &amp; Technology</td>
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<td>Horton, Tamra (2000)</td>
<td>Faculty and Academic Administrators</td>
<td>English, Literature &amp; Journalism</td>
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<td>Howell, Luisa (2002)</td>
<td>Faculty and Academic Administrators</td>
<td>Foreign Languages</td>
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<td>Huang, Kenneth (2006)</td>
<td>Faculty and Academic Administrators</td>
<td>Chemistry</td>
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<td>Faculty and Academic Administrators</td>
<td>Respiratory Technology</td>
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<td>Impara, Carol (2005)</td>
<td>Faculty and Academic Administrators</td>
<td>Consumer &amp; Design Technologies</td>
<td>B.A., Davidson College M.S., University of Maryland</td>
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<td>Jackson, Christopher (2005)</td>
<td>Faculty and Academic Administrators</td>
<td>Kinesiology/Athletics / Head Coach, Women's Water Polo and Swimming</td>
<td>B.S., California State University, Fullerton M.S., Azusa Pacific University</td>
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<td>Jagodka, Ralph F. (1997)</td>
<td>Faculty and Academic Administrators</td>
<td>Accounting &amp; Management</td>
<td>B.S., Western Illinois University M.B.A., Pepperdine University Ed.D., University of La Verne</td>
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<td>Faculty and Academic Administrators</td>
<td>Industrial Design</td>
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<td>Faculty and Academic Administrators</td>
<td>Kinesiology/Athletics / Head Coach, Men's Football</td>
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<td>Jefferson, Paul (2001)</td>
<td>Faculty and Academic Administrators</td>
<td>Public Services</td>
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<td>Faculty and Academic Administrators</td>
<td>Dean, Humanities &amp; Social Sciences</td>
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<td>Kakiba-Russell, Karyn N. (1990)</td>
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MISSION

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